

Maricopa County's Workload and Resource  
Needs Analysis for Accessing Permit Fees

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Air Quality Division  
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## Executive Summary

Maricopa County derives its authority to regulate air quality from the Federal Clean Air Act and from State statutes. The first Federal Clean Air Act was passed in 1963. It provided for grants to air pollution control agencies and contained the first federal regulatory authority. The Act was amended in 1965, 1967, 1970, 1977, and 1990. One important feature of the Act was the establishment of National Ambient Air Quality Standards (NAAQS) in 1970. These standards, which are promulgated by the Environmental Protection Agency (EPA), are set at levels which protect public health and welfare.

Another significant aspect of the Act is the requirement that states formulate plans to comply with the NAAQS. Specifically, Title I of the Act requires states to adopt and submit to EPA plans which provide for the implementation, maintenance and enforcement of air quality standards within a specific time after standard promulgation. This plan, consisting of several different elements, is referred to as the State Implementation Plan (SIP) and provides the legal authority and general purpose for all air quality programs in the Air Quality Division.

Arizona's SIP contains State statutes and rules, county regulations and non-attainment area plans required for attainment and maintenance of the NAAQS. These documents are transmitted by the Arizona Department of Environmental Quality (ADEQ) to EPA. EPA formally approves or disapproves the SIP revisions through Federal Register notices.

State statute divides jurisdiction over air pollution sources between the State and counties. The State has exclusive jurisdiction over mobile and portable sources, copper smelters, cement plants, petroleum refineries and coal-fired electric generating facilities. ADEQ may delegate any of these sources to a county air pollution control district. Currently Maricopa County has established an air pollution control program and has authority to regulate air pollution sources not under exclusive jurisdiction of the State.

In the Metropolitan Phoenix Nonattainment Area, the Maricopa Association of Governments (MAG) is required to develop plans to show how the area will attain and maintain the NAAQS. MAG must adopt and implement the plans as expeditiously as practicable. For example, areas not meeting particulate (PM<sub>10</sub>) standards, control strategies such as reducing emissions from paved and unpaved roads, suppressing fugitive dust, and other measures are key elements of the plan.

With respect to non-attainment areas, the CAA included several new key provisions of the act, including:

- Classifications of non-attainment areas according to the severity of the problem;
- Control measures required for each classification; and
- Deadlines for compliance with NAAQS

Other major features of the 1990 CAA addressed the following issues:

- Mobile sources
- Hazardous Air Pollutants (HAPs)
- Acid rain
- Permits

- Stratospheric ozone depletion
- Visibility protection and
- Enforcement

Programs conducted pursuant to the SIP and State law, developed in Maricopa County by Maricopa County Environmental Services Department (MCESD), and discussed in more detail throughout this document include:

#### Planning

Develops and coordinates air quality programs, emission control strategies, non-attainment area plans, and general policies; develops rules, including enforceable emission limitations and other measures necessary for attainment and maintenance of the standards and submits them as SIP revisions to ADEQ.

- Emissions control research and source investigations
- Modeling for SIPs and potential permits

#### Permits

Includes a five-year unitary permit for industrial sources of air pollution. Maricopa County has legislative authority to administer the Title V Permitting Program and the Federal program for control of HAPs.

#### Compliance

Compliance determinations of air pollution sources including:

- Inspections for Title V Sources, Non-Title V sources, and non-permit related sources
- Complaint investigations
- Emissions monitoring and performance testing
- Administration of Asbestos National Emissions Standard for Hazardous Air Pollutants (NESHAP)
- Emissions inventories administration
- Compliance status determinations
- Enforcement

#### Monitoring

Includes:

- Ambient monitoring and data analysis



- Special studies and research
- Assist in visibility monitoring and research

#### Technical Assistance and Education

Maricopa County has developed a Small Business Assistance Program and currently provides the public and governmental agencies with technical and policy information as well as public participation opportunities. Other technical assistance activities are directed internally for administration, budget, and data support needs.

The Maricopa County Environmental Services Department Director, Air Quality Division Manager, staff, industry representatives and environmental advocates continue to work on regulatory and program changes to ensure that Arizona will meet federal deadlines. Program and administrative staff have focused on determining levels of staff and fiscal resources necessary to fully implement the provisions of the CAA, State statutes, and County rules. This workload analysis presents summary as well as specific information about the projects and tasks to be accomplished and resources needed to support the programs.

#### **Workload Analysis Methodology**

The description of the methodology used in the Workload and Resource Needs Analysis is illustrated below. The Workload and Resource Needs Analysis is used as a means of developing Air Quality Division (AQD) budgets and as such, is updated on a regular basis. The workload analysis document exhibits summary as well as specific information about the projects, tasks to be accomplished, and resources needed to support the programs in AQD.

#### **Background**

In creating the workload analysis document, AQD followed the goals and objectives in the Department's Strategic Plan. Program activities are aligned to ensure air quality, meet mandates, and improve processes.

The analysis of the workload and the resource needs is sectioned into seven (7) Air Quality Program areas:

- Rulemaking
- State Implementation Plan
- Industrial Source Control and Permitting
- Compliance and Enforcement
- Air Monitoring and Research
- Public Information and Education
- Administration and Program Management Elements

These seven program areas are designed to accomplish the goals and objectives for the Air Quality Division. AQD management brought together work related activities associated with the

accomplishment of these program goals and objectives, and identified them as a task. A task assumption form supports the detail of each task. The assumptions outline required activities to facilitate the project. There are approximately one hundred and five (105) specific tasks identified in the workload.

## **Determinations**

The methodology of resource allocation is determined by Title V and Non-Title V task association. The CAA Title V operating permit program overview set forth in 40CFR, Part 70, includes the guidance for this determination. Each task is assigned to one of the following categories:

- Title V Permit Related Recoverable
  - 1A Federal - All costs associated with the issuance of Title V individual
  - 1C Federal - All costs associated with the issuance of Title V general permits
  - 1E Federal - All costs associated with the issuance of Title V permits adjustments
- Title V Non-Permit Related Recoverable
  - All non-permit related allowable Title V costs, excluding permit issuance, which must be recovered through fees mandated under CAA and SB 1430
- Non-Title V Federal Non-Recoverable
  - All federal program costs which are not cost recoverable
- Non-Title V Permit Related Recoverable
  - 1B - All costs to administer the Non-Title V individual permits
  - 1D - All costs to administer the Non-Title V general permits
  - 1F - All costs Non-Title V permits adjustments

All other costs to administer the Non-Title V permits
- Non-Title V Non-Recoverable
  - All program costs which are not cost recoverable by statute
- Non-Program Time

Once established, staffing hours are assigned to each required task and costs are defined based on average salaries (including ERE and indirect charges) and estimates of equipment, travel, contractual and operational costs to support each task.

## Workload and Financial Requirements

The MCESD AQD finds the initial assumptions of the preliminary analysis (1993 Workload Analysis) supporting program expansion to meet the 1990 CAA to the extent of program changes and the cost necessary to support them are underestimated. In addition, the 1993 Workload Analysis did not anticipate sufficient permitting, compliance, monitoring, and planning staff necessary to address program requirements brought about by the delay in the EPA granting approval of the MCESD's Title V program. As expected from evaluating the previous 1993 Workload Analysis, program costs, such as contracts, replacement parts, technical capital costs, associated with implementing requirements of CAA are considerable. This current analysis reflects AQD's current understanding of the necessary costs associated with these programs.

This report shows some AQD Sections are more significantly affected than others by these revised estimates of resources necessary to fully implement the CAA. The more significant

staffing increases are described below for Permits, Compliance, Assessment, Planning and the Air Quality Division component of the Compliance Assistance Section.

Division Manager's Office and Other Administrative Support Services - At the time that this analysis was conducted in 1993, the Division Manager's Office included eight FTE: the Air Quality Division Manager (DM), the Assistant Air Quality Division Manager (ADM), the Office Supervisor, an Administrative Assistant, Data Control Specialist, two Records Processors, and a Data Control Clerk. Since that time, the Environmental Services Department and the Air Quality Division have been reorganized. Several of the above support positions are now located in specific Division sections instead of in the Administrative Unit. In addition, Maricopa County streamlined and automated its internal functions for purchasing and payroll that resulted in a transfer of tasks to the individual County Division level. The Division Manager's Office will contain six FTE: the DM, the ADM, the Office Supervisor, the Purchasing Specialist, and two Administrative Assistants. Other administrative support services personnel include 4 technical FTE, 0.5 manager FTE and 0.5 support staff FTE.

Division Manager's Office	Budgeted
Full Time Employees (FTEs)	10.9
Salaries	\$502,955
Employee Related Expenses (ERE)	\$106,580
Professional & Outside Services (P&O)	\$0
Travel In	\$3,212
Travel Out	\$5,462
Other Operations	\$5,462
Equipment	\$34,354
Administrative Costs	\$106,104
Total Cost	\$764,129

Permits - In 1993, when initial workload analysis was done to estimate the workload associated with the CAA, it was estimated that there would be a drop in the workload once we issued all the permits in the first three years. The analysis below had presumed that we would be fully staffed in 1994 and our Title V permit program would be approved by the EPA by November 1994. EPA did not approve our Title V program till November 1996, nor we were able to fill all the positions because of high turnover and inability to find qualified applicants. In addition, Maricopa County was reclassified to "Serious" for ozone effective February 13, 1997. This action resulted in a number of additional Title V sources not included in the 1993 analysis. This has pushed our permit issuance schedule two years back to 1999. The permit processing times have also been changed to reflect our actual experience in processing these permits. This current analysis reflects an increase from the original 1993 workload in both technical and clerical support staff.

Permits	Budgeted
Full Time Employees (FTEs)	21.3
Salaries	\$1,002,809
Employee Related Expenses (ERE)	\$210,519
Professional & Outside Services (P&O)	\$0
Travel In	\$0
Travel Out	\$10,638
Other Operations.	\$10,638
Equipment	\$66,911
Administrative. Costs	\$209,513
Total Cost	\$1,511,028

Compliance - With the continuing implementation of the state unitary air quality permitting program and with the inclusion of the Title V monitoring, record keeping, and reporting requirements, the demands made of the Compliance Section are expected to remain high. The level of inspection detail, report review, data analysis, estimated in the 1993 WLA, necessary to monitor compliance and develop appropriate enforcement remedies in the event of non-compliance, were underestimated in 1993. It should be noted the 1993 WLA did not anticipate the increased emphasis on Compliance Assistance. This customer assistance includes, asbestos NESHAP workshop and seminars, and those resources necessary for field inspectors to conduct on site customer assistance.

Compliance	Budgeted
Full Time Employees (FTEs)	46.5
Salaries	\$1,865,985
Employee Related Expenses (ERE)	\$419,061
Professional & Outside Services (P&O)	\$0
Travel In	\$155,540
Travel Out	\$23,266
Other Operations	\$23,266
Equipment	\$260,682
Administrative Costs	\$417,974
Total Cost	\$3,165,776

Planning - The CAA prescribes new stringent requirements and deadlines for the preparation and implementation of highly specific and complex SIP revisions. In addition MCESD is charged with completing overdue tasks related to the SIP. Failure to develop and implement these requirements subjects the State to federal sanctions, federal implementation plans and citizen suits. Many of the SIP revisions require new rule making, frequently in coordination with local and regional agencies. Rules must be periodically updated to maintain consistency with federal law, to correct deficiencies and to implement new federal requirements.

Increased task hours for the Planning Section over the original estimation occurred for the following reasons:

- The number of new emission management rules expanded. More intensive outreach to affected communities also increased the workload.
- The addition of unanticipated SIPs due to the area's reclassification to "Serious" for CO, Ozone, and Particulates and lawsuits related to completed SIPs increased the workload anticipated under the first workload analysis.
- Additional workload not originally anticipated arose under tasks for information and education, general policy development, and Strategic Planning; outputs included several subprogram policies, Department strategic plan components, and new outreach and public education efforts to customers.
- Other unforeseen activities included program-wide management and support to the Office of the Air Quality Division Manager.
- The number of hours for program coordination by managerial staff was underestimated.

- The increase in emission inventory reporting requirements and complexity.

The cost of the staffing increase affects the Permit Fee Fund and the Federal Grant.

Planning - SIP Program, Rules, Emission Inventory & General Environmental Studies	Budgeted
Full Time Employees (FTEs)	10.5
Salaries	\$495,652
Employee Related Expenses (ERE)	\$104,180
Professional & Outside Services (P&O)	\$0
Travel	\$2,410
Travel Out	\$5,274
Other Operations	\$5,274
Equipment	\$33,174
Administrative Costs	\$103,687
Total Cost	\$749,652

**Monitoring** - The increased workload estimate in the workload analysis for the Monitoring Section is due to a number of factors, including the following: the Maricopa County nonattainment area continues to grow rapidly, changes in network design and the addition of monitors are necessary; there are new standards for fine particulate matter and ozone which EPA recently finalized; and specific efforts, such as the VEO program and the PM-10 microscale program and other special purpose monitoring, are requiring expanded work in monitoring, sampling, and modeling. These program changes will impose significant new workload requirements. This increase in workload has resulted in an increase in staffing from the original assumptions made in the 1993 workload analysis.

Monitoring	Budgeted
Full Time Employees (FTEs)	16.5
Salaries	\$571,934
Employee Related Expenses (ERE)	\$137,425
Professional & Outside Services (P&O)	\$0
Travel In	\$54,955
Travel Out	\$8,272
Other Operations	\$8,272
Equipment	\$291,663
Administrative Costs	\$137,350
Total Cost	\$1,209,871

**Compliance Assistance Program** - Because the CAA can affect many small businesses with limited technical and financial resources, the Act required each state to develop a program to help businesses in Arizona understand and comply with environmental regulations. MCESD has developed the Compliance Assistance Program to fill this need. The program is located in the Community Services Division, separate from the inspection and enforcement units in the Air Quality Division, and was created to take the anxiety out of dealing with a regulatory agency. Small businesses can receive assistance from the Compliance Assistance Program in conducting on-site compliance assessments, identifying pollution prevention opportunities, and in some cases, locating financial resources. State and local programs are also required to provide information about compliance methods and technologies for small businesses.

In addition, the Compliance Assistance Program produces guidance documents, fact sheets, and brochures to provide "plain english" interpretations of rules and requirements. Seminars and workshops are conducted for specific industries as new regulations are adopted or common misinterpretations are discovered. Other activities include: coordinating information efforts with

trade associations or other small business service providers; operating a Pollution Prevention Library to respond to requests from small businesses; and providing assistance for small businesses in completing necessary permit applications and reports. Small businesses now also have access to a Small Business Ombudsman (the Small Business Assistance Program Unit Manager) who can ensure that the small business interest is represented in implementing air quality regulations, and can assist in resolving issues between the small business community and the MCESD.

Based on historical information more time is required than anticipated in the 1993 workload analysis. Compliance Assistance position requirements have increased by one FTE in the current workload analysis.

Small Business Environmental (Compliance) Assistance & Pollution Prevention	Budgeted
Full Time Employees (FTEs)	3.0
Salaries	\$141,945
Employee Related Expenses (ERE)	\$29,778
Professional & Outside Services (P&O)	\$0
Travel In	\$8,609
Travel Out	\$1,503
Other Operations	\$1,503
Equipment	\$9,454
Administrative Costs	\$29,635
Total Cost	\$222,427

All expenditures have been categorized by task (workplan element). MCESD staff used the following definitions in preparation of Table 1 to demonstrate program costs associated with the issuance of Title V and Non-Title permits for the purposes of this report and the development of appropriate fees.

## **CATEGORY**

### **Title V**

#### **1. Title V Permit Related Recoverable**

1A Federal - All costs associated with the issuance of Title V individual

1C Federal - All costs associated with the issuance of Title V general permits

1E Federal - All costs associated with the issuance of Title V permits adjustments  
(Significant major revisions, minor revisions, administrative adjustments, and transfers)

#### **3. Title V Non-Permit Related Recoverable**

All non-permit related allowable Title V costs, excluding permit issuance, which must be recovered through fees mandated under CAA and SB 1430

#### **5. Title V Federal Non-Recoverable**

All federal program costs which are not cost recoverable; (enforcement actions, grant activity)

## **Non-Title V**

### **2. Non-Title V Permit Related Recoverable**

1B - All costs associated with the issuance of Non-Title V individual

1D - All costs associated with the issuance of Non-Title V general permits

1F - All costs associated with the issuance of Non-Title V permits adjustments  
(Significant major revisions, minor revisions, administrative adjustments, and transfers)

All costs associated with inspections of Non-Title V permitted sources

### **4. Non-Title V Non-Recoverable**

All program costs which are not cost recoverable by statute

### **6. Non-Program Time**

All Title V costs will be funded through fees directed under the CAA or State statute. Non-Title V and federal costs will be funded from the Permit Fee Fund or the Federal Grant. The specific funding sources for each workplan task are identified in the table at the end of each section.

Program FTE requirements were calculated using a task-based workload analysis. Each program lead, supervisor, or manager submitted hours required to perform the primary tasks for each project and the number of projects. The workload hours for the program were calculated by multiplying task hours of a project by the number of projects. Then program FTE requirements were determined by dividing workload hours by the standard of 1600 annual hours per FTE. The 1600 hours is used as the actual quality production time per employee per year based on the table below.

**Annual Quality Production Time Per Employee**

<b>Item</b>	<b>Hours Per Year</b>
1. Average paid hours per employee	2,080
2. Average non-productive paid hours	
a. Holidays	80
b. Vacation	100
c. Sick Leave	50
d. Training	80
e. Staff/Supervisory Meetings	80
f. Administrative Records/Reports	
Production	50
g. Miscellaneous Activities	40
Item 2 Total	480
3. Actual quality production time (2080 - 480 = 1600)	1,600



The standard costs displayed in Table 1 are taken from Department of Finance Office of Management and Budget guidance documents. These documents are on file in the Maricopa County Office of Management and Budget.

<b>Table 1 - Standard Costs</b>			
<b>Category</b>	<b>FY 1999</b>	<b>FY 2000</b>	<b>FY 2001</b>
Personnel <sup>1</sup> :			
Technical			
Permits/ Planning	\$48,432	\$48,432	\$48,432
Compliance	\$37,130	\$37,130	\$37,130
Monitoring	\$31,741	\$31,741	\$31,741
Supervisory	\$53,599	\$53,599	\$53,599
Managerial	\$67,101	\$67,101	\$67,101
Admin Support/ Clerical	\$27,560	\$27,560	\$27,560
Standard Staffing Ratios <sup>2</sup> :			
Section Supervision : Technical Personnel			
Managerial: Technical	1:30	1:30	1:30
Clerical: Technical	1:6.25	1:6.25	1:6.25
Permits: Technical	1:7	1:7	1:7
Compliance: Technical	1:7	1:7	1:7
Planning: Technical	1:9	1:9	1:9
Monitoring: Technical	1:9	1:9	1:9
Employee Related Expenses	10.1% of	10.1% of	10.1% of
Benefits	Salary +	Salary +	Salary +
Workman's Compensation	\$3937	\$3937	\$3937
Unemployment			
FICA			
Health Insurance			
Dental Insurance			
Life Insurance			
Incentives	2.50% of	2.50% of	2.50% of
	Salary	Salary	Salary
Professional Services (P & O)	N/A	N/A	N/A
Specific contractual services identified			
Travel In-State:			
Mileage per Field Personnel <sup>3</sup>	\$3,780	\$3,780	\$3,780
Travel Out-of-State:			
Training Costs:			
Per Employee (per year)	\$500	\$500	\$500
Other Out-of-State Travel:			
Per Diem (per day)	\$36.00	\$36.00	\$36.00
Equipment (Personal) <sup>4</sup> :			
* Standard Operating Costs:	\$3,056	\$3,056	\$3,056
* Education/Training	\$500	\$500	\$500
(Other Operating Costs)			
* Per Employee			

<b>Table 1 - Standard Costs</b>			
<b>Category</b>	<b>FY 1999</b>	<b>FY 2000</b>	<b>FY 2001</b>
Equipment (Technical) <sup>5</sup> : Additional Standard Operating Costs: Per Investigator to cover Technical & Safety Equipment	\$2,713	\$2,713	\$2,713
Equipment (Technical) <sup>6</sup> : Additional Standard Operating Costs: Per Air Quality Monitoring Personnel	\$2,630	\$2,630	\$2,630
Administrative Costs <sup>7</sup> : Overhead (ISF) <sup>8</sup> : (% of Personal Services) Administrative Staff Support	12.3	12.3	12.3
Postage			
Lease/Purchase			
Express Mail			
Photocopying			
PC Maintenance			
Insurance			
DOA Communication Costs			
DOA Data Processing Costs			
Telecommunication	\$750	\$750	\$750
Rent <sup>9</sup>	\$3,300	\$3,300	\$3,300

<sup>1</sup>Personnel Salaries were calculated by averaging the salaries of all current employees in each category.

<sup>2</sup>Staffing ratios were applied to Technical Personnel. Technical Personnel, or Full-Time Employees (FTEs), were calculated based on workload hours divided by 1600 hours per year.

Example Calculation:

$$7 \text{ FTEs} \times (1 \text{ Supervisor} / 7 \text{ Employees}) = 1 \text{ Compliance Supervisor}$$

<sup>3</sup>Mileage is calculated by using 31.5 cents a mile and 1000 miles per month for 12 months for all investigators and air quality monitoring personnel.

<sup>4</sup>This represents the standard operating cost attributable to all AQD employees and includes the following costs:

Item	Cost	Frequency (Replacement times/year)	# of units/Employee
Pens, pencils, paper, etc	\$1000	1	1/FTE
Other Supplies - safety	\$500	1	1/FTE
Copying Equipment	\$15,000	0.25	4/FTE
Desk, chair	\$2,500	0.25	12/FTE
Computer	\$2,500	0.25	12/FTE
Reprographics	\$25,000	1	5/FTE
Fax Equipment	\$500	1	5/FTE
Public Advertisement	\$5,000	1	5/FTE

The costs in the table were adjusted by the frequency of replacement of an item and the number of items replaced per year or the number of items in use per year in order to obtain one cost to per AQD employee.

Simply, the equation is:

$$(\text{Cost/ Item/Year}) \times (\# \text{ of Items/ } \# \text{ FTEs}) \times (\text{Replacement Year/ Item Life Years}) = \text{Cost/ FTE/ Year}$$

or

$$\$1,000 + \$500 + (0.25 \times 4 \times 15,000)/\# \text{ of Employees} + (0.25 \times 12 \times (2,500+2,500))/\# \text{ of Employees} + (5 \times (25,000 + 500 + 5,000))/\# \text{ of Employees} = \$3,056$$

where the number of employees (FTEs) is 117.3 determined by the workload hours divided by 1600 hours.

<sup>5</sup>This cost is added to the Standard Operating Costs of all investigator, source test, and air quality monitoring personnel equipment costs.

Item	Cost	Frequency (Replacement times/year)	# of units/Employee
Cameras & related equipment	\$400	0.25	1/FTE
Replacement parts, calibration	\$1000	1	1/FTE
Binoculars	\$150	1/5	1/FTE
Instruments & other measurement equipment	\$500	2/3	1/FTE
Safety Courses	\$500	2/3	1/FTE
Respirators	\$125	2/3	1/FTE
Gloves, goggles, shoes, etc.	\$500	2/3	5/FTE
Medical Monitoring	\$750	2/3	5/FTE

The standardized calculation is as follows:

$$0.25 \times 400 + 1000 + 0.2 \times 150 + ((2/3) \times (500 + 500 + 125 + 500 + 750)) = \$2,713 / \text{FTE}$$

Vehicle costs were attributable to each program that currently has a dedicated vehicle in the following manner:

Program	# of Vehicles	Cost to Purchase New	Annual Maintenance Cost
Title V & Non-Title V Inspections	1*	\$20,000	\$5,000
Stage I	1*	\$20,000	\$5,000
Earthmoving	2*	\$20,000	\$5,000
Asbestos	1	\$20,000	\$5,000
*Planned for purchase.			

Vehicle costs were included in the per employee Equipment Costs for the programs that require vehicles.

<sup>6</sup>This cost is added to the Standard Operating Costs of all air quality monitoring personnel equipment costs.

Item	Cost	Frequency (Replacement times/year)	# of units/Employee
Scientific Equipment for monitoring sites	\$50,000	1	1/all monitoring FTE
Anemometers	\$150	0.25	5/FTE

The standardized calculation is as follows:

$$50,000 / \# \text{ of Monitoring Personnel} + (0.25 * 5 * 150) = \$2,630 / \text{FTE}$$

Vehicle costs were attributable to each program that currently has a dedicated vehicle. Air Monitoring has 5 dedicated vehicles and one new vehicle planned for purchase annually.

<sup>7</sup>Administrative cost was calculated using this equation: FTEs x (0.167 + 750 + 3,300).

<sup>8</sup>This percentage applied to personnel salaries is adjusted by the Maricopa County Office of Management and Budget and refers to internal operating charges to all departments of the county.

<sup>9</sup>Rent is calculated using \$16.50 per square foot and 200 square feet per employee.

## Chapter 1: Introduction

Maricopa County derives its authority to regulate air quality from the Federal Clean Air Act and from State statutes. The first Federal Clean Air Act was passed in 1963. It provided for grants to air pollution control agencies and contained the first federal regulatory authority. The Act was amended in 1965, 1967, 1970, 1977, and 1990. One important feature of the Act was the establishment of National Ambient Air Quality Standards (NAAQS) in 1970. These standards, which are promulgated by the Environmental Protection Agency (EPA), are set at levels which protect public health and welfare.

Another significant aspect of the Act is the requirement that states formulate plans to comply with the NAAQS. Specifically, Title I of the Act requires states to adopt and submit to EPA plans which provide for the implementation, maintenance and enforcement of air quality standards within a specific time after standard promulgation. This plan, consisting of several different elements, is referred to as the State Implementation Plan (SIP) and provides the legal authority and general purpose for all air quality programs in the Air Quality Division.

Arizona's SIP contains State statutes and rules, county regulations and non-attainment area plans required for attainment and maintenance of the NAAQS. These documents are transmitted by MCESD to the Arizona Department of Environmental Quality (ADEQ). ADEQ then transmits them to EPA. EPA formally approves or disapproves the SIP revisions through Federal Register notices.

State statute divides jurisdiction over air pollution sources between the State and counties. The State has exclusive jurisdiction over mobile and portable sources, copper smelters, cement plants, petroleum refineries and coal-fired electric generating facilities. ADEQ may delegate any of these sources to a county air pollution control district. Currently Maricopa County has established an air pollution control program and has authority to regulate air pollution sources not under exclusive jurisdiction of the State.

In the Metropolitan Phoenix Nonattainment Area, the Maricopa Association of Governments (MAG) is the lead agency for the development of plans to show how the area will attain and maintain the NAAQS. MAG must adopt and implement the plans as expeditiously as practicable. MCESD, ADEQ, and the Arizona Department of Transportation also have responsibilities in developing the plans. For example, in areas not meeting particulate (PM<sub>10</sub>) standards, control strategies such as reducing emissions from paved and unpaved roads, suppressing fugitive dust, and other measures are key elements of the plan.

With respect to non-attainment areas, the CAA included several new key provisions of the act, including:

- Classifications of non-attainment areas according to the severity of the problem;
- Control measures required for each classification; and
- Deadlines for compliance with NAAQS

Other major features of the 1990 CAA addressed the following issues:

- Mobile sources
- Hazardous Air Pollutants (HAPs)
- Acid rain

- Permits
- Stratospheric ozone depletion
- Visibility protection and
- Enforcement

Programs conducted pursuant to the SIP and State law, developed in Maricopa County by Maricopa County Environmental Services Department (MCESD), and discussed in more detail throughout this document include:

#### Planning

Develops and coordinates air quality programs, emission control strategies, non-attainment area plans, and general policies; develops rules, including enforceable emission limitations and other measures necessary for attainment and maintenance of the standards and submits them as SIP revisions to ADEQ.

- Rule Development
- Emissions inventories administration
- SIP Development
- Emissions control research and source investigations
- Modeling for SIPs and potential permits

#### Permits

Includes a five-year unitary permit for industrial sources of air pollution. Maricopa County has legislative authority to administer the Title V Permitting Program and the Federal program for control of HAPs.

#### Compliance

Compliance determinations of air pollution sources including:

- Inspections for Non-Title V Sources, State sources, and non-permit related sources
- Complaint investigations
- Emissions monitoring and performance testing
- Administration of Asbestos National Emissions Standard for Hazardous Air Pollutants (NESHAP)
- Compliance status determinations
- Enforcement

### Monitoring

Includes:

- Ambient monitoring and data analysis
- Special studies and research
- Assists in visibility monitoring and research

### Technical Assistance and Education

Maricopa County has developed a Small Business Environmental Assistance Program and currently provides the public and governmental agencies with technical and policy information as well as public participation opportunities. Other technical assistance activities are directed internally for administration, budget, and data support needs.

## **Chapter 2: Analysis of Workload and Workload Needs**

### **2.1 Ongoing Program Planning and Development**

Numerous provisions of the Clean Air Act (CAA) require highly specific and complex air quality management rules and strategies to be adopted and implemented. Many of these rules and strategies must be incorporated into a State Implementation Plan (SIP) revision that is submitted to EPA for review and approval, and subsequent incorporation into the applicable SIP. Other CAA programs, such as the Title V operating permits program, are delegated to states. Failure to develop and implement these requirements subjects the state to federal sanctions (e.g., loss of highway funds), direct federal intervention in the form of federal implementation plans, and citizen suits.

Maricopa County is responsible for developing air management rules and strategies. With respect to Title V sources, numerous rules must be adopted by Maricopa County that reflect federal emission management and control requirements for industrial sources. They also must be periodically updated to maintain consistency with current EPA guidance and policy. Industrial source control strategies must be included in SIPs if these sources are significant contributors to violations of the NAAQS. In all Maricopa County nonattainment areas, industrial sources have been identified as contributors to NAAQS violations.

In order to ensure the implementation of comprehensive rules and SIPs, Maricopa County relies on information and data generated from other activities conducted within the air quality program, such as: General Environmental Studies, contributing resources in support of the Visibility Program, General Policy Development, Environmental Impact Assessment Reviews and Strategic Planning.

#### **2.1.1 Emission Management Rules**

Plain Language Description - Numerous emissions management rules must be adopted and kept current with CAA requirements and EPA guidance. Among other things, these rules define permitting procedures and fees, identify appropriate control technologies, set emissions and work practice standards, and monitoring and reporting requirements. Rules may apply exclusively or in part to permitted sources (Title V, non-Title V, or both), or relate to other activities and procedures unrelated to permitted sources (e.g., open burning, architectural coating, residential woodburning).

General Description - The CAA requires EPA to promulgate certain control technology requirements for major industrial sources such as New Source Performance Standards (NSPS), National Emission Standards for Hazardous Air Pollutants (NESHAPS) and Maximum Available Control Technology (MACT). States and local governing agencies can be delegated authority to enforce these requirements if they adopt comparable rules at least as stringent as the federal rules. EPA continually adds to and updates these rules, which necessitates periodic rulemaking by the state to maintain full delegation.

Section 110 of the CAA instructs states to adopt the National Ambient Air Quality Standards (NAAQS) and a wide range of procedures, emissions control programs and other standards into law. All of these components are part of the SIP, which, if approved by EPA, are enforceable by both the County and EPA. The major industrial source permitting program is the New Source Review/Prevention of Significant Deterioration (NSR/PSD) program, which applies to construction and modification of major industrial sources of air pollution. Other rules include standards for area sources, which may apply to certain activities at an industrial source (e.g., materials handling, storage piles, unpaved roads), or may be exclusive of industrial sources (e.g.,



architectural coating, residential woodburning, earthmoving). In total, the emissions management rules must be designed to attain and maintain the NAAQS, protect visibility, and manage potential air pollution nuisances.

In addition to the federal requirements, A.R.S. 49-112 requires a variety of other activities related to rulemaking. Each rule is required to include a demonstration of the grounds and evidence of compliance with A.R.S. 49-112 Sections A and B, summary of the rule, and a comment and responses summary.

**Assumptions** - Based on historical experience, it takes about an estimated average 820 hours to develop and adopt a complex air quality rule and 294 hours to develop and adopt a simple air quality rule. Work involved includes researching EPA requirements and approaches taken by other states to meet these requirements, drafting rules, reviewing rules with affected stakeholders, conducting public workshops, filing rule notices with the Arizona Administrative Register, submitting rules to ADEQ and EPA, developing an implementation strategy for Maricopa County programs and staff, conducting training sessions, and responding to questions from Maricopa County, the general public, and industry personnel.

This workload reflects two significant changes. The workload is broken into simple and complex categories of rules and represents contributions from other division sections. The effort for Planning has increased, primarily due to increased stakeholder involvement and compliance with more extensive requirements of A.R.S. 49-112.

<b>Table 2.1.1.A Emission Management Rules Estimated Average Program Hours for Rule Making by Program Area</b>		
	Simple	Complex
Permits	29	86
Compliance	22	75
Planning	175	514
Rule Development	68	145
Total	294	820

An anticipated rulemaking schedule, based on existing State and Federal requirements, and some anticipated State requirements, can be found in Table 2.1.1.B. Note that some rulemaking efforts will extend over two fiscal years; the counts for each fiscal year reflect this. (It is assumed that any effort extending over two fiscal years will be 50% in each respective year.)

**Table 2.1.1.B Emission Management Rules  
Rule Development Rulemaking Project Schedule Hours/Year**

Rule Package	Category	FY 1999 hrs/yr	FY 2000 hrs/yr	FY 2001 hrs/yr
<b>NSR Corrections to Match ADEQ</b>	Simple Title V 100%			
Permits	Title V 100%	30		
Compliance	Non-Title V 0%	15		
Planning		236		
Legal Review		120		
<b>Streamline Regulation II</b>	Complex			
Permits	Title V 25%	90		
Compliance	Non-Title V 75%	50		
Planning		450		
Legal Review		175		
<b>Fees</b>	Complex			
Permits	Title V 25%	125		
Compliance	Non-Title V 75%	100		
Planning		750		
Legal Review		225		
<b>Medical Waste Incinerators</b>	Simple Title V 100%			
Permits	Title V 100%	20		
Compliance	Non-Title V 0%	10		
Planning		225		
Legal Review		110		
<b>Surface Coating</b>	Complex			
Permits	Title V 10%	70		
Compliance	Non-Title V 90%	70		
Planning		486		
Legal Review		110		
<b>Degreasing</b>	Complex			
Permits	Title V 20%	70		
Compliance	Non-Title V 80%	70		
Planning		486		
Legal Review		110		
<b>Pharmaceutical &amp; Vitamin Mfg.</b>	Simple			
Permits	Title V 0%	30		
Compliance	Non-Title V 100%	15		
Planning		146		
Legal Review		75		
<b>Metal Investment Casting</b>	Complex			
Permits	Title V 0%	25		
Compliance	Non-Title V 100%	20		
Planning		353		
Legal Review		110		

**Table 2.1.1.B Emission Management Rules**  
**Rule Development Rulemaking Project Schedule Hours/Year**

Rule Package	Category	FY 1999 hrs/yr	FY 2000 hrs/yr	FY 2001 hrs/yr
<b>Semiconductor Mfg.</b>	Complex			
Permits	Title V 60%	70		
Compliance	Non-Title V 40%	70		
Planning		480		
Legal Review		125		
<b>Open Fugitive Dust Sources</b>	Complex			
Permits	Title V 12%	50		
Compliance	Non-Title V 88%	200		
Planning		750		
Legal Review		150		
<b>Gasoline Storage/Handling</b>	Complex			
Permits	Title V 25%	70	30	
Compliance	Non-Title V 75%	70	30	
Planning		350	200	
Legal Review		110	75	
<b>Residential Woodburning</b>	Simple			
Permits	Title V 0%			
Compliance	Non-Title V 0%	10		
Planning	Non-Recoverable 100%	128		
Legal Review		40		
<b>Cotton Gins</b>	Complex			
Permits	Title V 0%	70		
Compliance	Non-Title V 100%	70		
Planning	Non-Recoverable 0%	350		
Legal Review		125		
<b>Incinerators</b>	Complex			
Permits	Title V 0%	25		
Compliance	Non-Title V 100%	25		
Planning		235	100	100
Legal Review		100		
<b>Rule 320 SOx &amp; other issues</b>	Complex			
Permits	Title V 75%	40	40	
Compliance	Non-Title V 25%	40	40	
Planning		250	250	100
Legal Review		80	80	
<b>Visibility Rules</b>	Complex			
Permits	Title V 100%			
Compliance	Non-Title V 0%			
Planning				
Legal Review				

**Table 2.1.1.B Emission Management Rules  
Rule Development Rulemaking Project Schedule Hours/Year**

Rule Package	Category	FY 1999 hrs/yr	FY 2000 hrs/yr	FY 2001 hrs/yr
<b>NSPS/NESHAPS/Other Adoptions by Ref</b>	Simple			
Permits	Title V 100%	10	10	10
Compliance	Non-Title V 0%	10	10	10
Planning		150	150	150
Legal Review		40	40	40
<b>Monitoring Methods</b>	Complex Title V			
Permits	Title V 40%		50	50
Compliance	Non-Title V 60%		50	30
Planning			250	250
Legal Review			80	80
<b>Title V Excess Emissions</b>	Simple Title V			
Permits	Title V 100%	50		
Compliance	Non-Title V 0%	50		
Planning		150		
Legal Review		50		
<b>Part 70 Revisions/NSR Reform</b>	Complex Title V			
Permits	Title V 100%		100	100
Compliance	Non-Title V 0%		25	25
Planning			350	200
Legal Review			125	80
<b>Vehicle Refinishing</b>	Simple Non-Title V			
Permits	Title V 0%		25	
Compliance	Non-Title V 100%		25	
Planning			130	
Legal Review			40	
<b>Windshield Wiper Fluid</b>	Simple Non-Title V			
Permits	Title V 0%			
Compliance	Non-Title V 0%			
Planning	Non-Recoverable 100%	130		
Legal Review		40		
<b>Fiberglass Boat Mfg.</b>	Complex Title V			
Permits	Title V 100%		70	
Compliance	Non-Title V 0%		70	
Planning			490	
Legal Review			125	
<b>Fiberboard Saturation</b>	Complex Title V			
Permits	Title V 100%		70	
Compliance	Non-Title V 0%		70	
Planning			490	
Legal Review			125	

**Table 2.1.1.B Emission Management Rules  
Rule Development Rulemaking Project Schedule Hours/Year**

Rule Package	Category	FY 1999 hrs/yr	FY 2000 hrs/yr	FY 2001 hrs/yr
<b>Expandable Polyfoam Mfg.</b>	Simple--Title V			
Permits	Title V 100%		40	
Compliance	Non-Title V 0%		40	
Planning			275	100
Legal Review			100	
<b>General Review Regulations I through VI</b>	Complex--			
Permits	Title V 40%		80	
Compliance	Non-Title V 60%		80	
Planning			500	
Legal Review			125	
<b>Other Stakeholder Process</b>	Complex			
Permits	Non-Recoverable 100%	200		
Compliance		50		
Planning		200	200	200
Legal Review		80	80	80
<b>Total Hours</b>				
Permits		1045	515	160
Compliance		945	440	65
Planning		6305	3385	1100
Legal Review		1975	995	280
Total Hours-all		10270	5335	1605
<b>Total FTE</b>				
Permits		1	0	0
Compliance		1	0	0
Planning		4	2	1
Legal Review		1	1	0
Total FTEs		6	3	1

Workload Analysis -

**Table 2.1.1.C Emission Management Rules Workload Calculation**

Air Quality Division	FY 1999 Projected Workload hrs/yr	FY 2000 Projected Workload hrs/yr	FY 2001 Projected Workload hrs/yr
Permits			
Title V	280	380	130
Non-Title V	565	136	30
Non-Recoverable	200	0	0
Compliance			
Title V	257	305	47
Non-Title V	628	136	18
Non-Recoverable	60	0	0
Planning			
Title V	1860	2293	625
Non-Title V	3987	893	275
Non-Recoverable	458	200	200
Legal Review			
Title V	634	676	152
Non-Title V	1182	239	48
Non-Recoverable	160	80	80
TOTAL	10270	5335	1605
Title V	3031	3652	954
%Workload <sup>1</sup>	30	68	59
Non-Title V	6361	1403	371
%Workload <sup>1</sup>	62	26	23
Non-Recoverable	878	280	280
%Workload <sup>1</sup>	9	5	17

<sup>1</sup>The percentages based on a three year average were used as 52% Title V, 37% Non-Title V, and 10% Non-Recoverable.

Workload Discussion - This activity is required for maintaining a fully functional air quality program. If Maricopa County does not adopt and maintain emission management rules it will lose delegation of authority from EPA to enforce these programs in the state. However, it should be noted that rule development is becoming more time consuming because of increased complexity of EPA requirements, more frequent updates of EPA guidance, more intensive public participation in the rulemaking process, and increasing governmental oversight and lawsuits. Therefore, more rule revisions and increased program hours per rule could occur in the future.

**Table 2.1.1.D Emission Management Rules Financial Requirements**

	FY 1999	FY 2000	FY 2001
Technical	3.59	3.59	3.59
Managerial	0.40	0.40	0.40
Support Staff	0.57	0.57	0.57
Total	4.56	4.56	4.56
Proposed Budget			
Salaries	\$213,071	\$213,071	\$213,071
ERE	\$44,875	\$44,875	\$44,875
Subtotal	\$257,946	\$257,946	\$257,946
P & O	\$0	\$0	\$0
Travel In	\$0	\$0	\$0
Travel Out	\$2,279	\$2,279	\$2,279
Other Operations	\$2,279	\$2,279	\$2,279
Equipment	\$14,333	\$14,333	\$14,333
Subtotal	\$18,890	\$18,890	\$18,890
Administrative	\$44,665	\$44,665	\$44,665
Total	\$321,502	\$321,502	\$321,502

Financial Discussion - Title V and Non-Title V costs associated with this task are cost recoverable and funded by the Permit Fee Fund. The non-recoverable portion of this program is funded by the continuing Federal grant from EPA, assuming an amount of about \$930,000. If the actual award is less than the projection, expenditures for this and all federally-funded tasks will be adjusted.

## **2.1.2 SIP Revisions and Nonattainment Area Plans and Submittals**

Plain Language Description - The CAA requires states to develop implementation plans that specify enforceable control strategies to ensure attainment and maintenance of NAAQS in areas that are in "nonattainment," and restore and maintain visibility in wilderness areas. These plans are commonly referred to as Nonattainment Plans (NAPs) and are infrequently incorporated into the applicable Arizona SIP. In addition, Maricopa County is responsible for submitting to ADEQ SIP emissions control measures and evaluations of the effectiveness of SIP emissions control strategies.

General Description - The Air Quality Planning and Air Quality Monitoring Sections participate in the development, tracking and revising of NAPs for nonattainment problems relating to specific sources and visibility protection. For all nonattainment areas, sources are required to meet certain control requirements, including the mandatory control programs identified in Subpart D, Title I of the CAA, reasonable available control measures (RACM), and best available control measures (BACM). Emissions control programs must be specified and demonstrated to reduce emissions such that attainment and maintenance with NAAQS is achieved. All plans require periodic evaluation to determine if emissions reductions, as a whole, promised within the plans are being achieved (reasonable further progress or RFP), and that individual control programs are meeting their prescribed emissions reduction targets.

EPA periodically updates requirements for nonattainment and visibility protection plans that require periodic updates of SIPs.

Assumptions - It takes about 700 hours of staff time to develop and prepare materials for nonattainment area plans. Work includes reviewing EPA guidance and experience in other states, identifying the emission reduction needs through analysis of source/receptor modeling information, developing control strategy alternatives including cost/benefit analysis, working with broad based advisory committees to select strategies, documenting attainment/maintenance demonstration per EPA guidance and adopting the strategies through the rulemaking process. Submittal to EPA and periodic reporting of progress in strategy implementation is also required. All SIP related activities that affect permitted sources are handled through rule making; thus, accounting for staff time is included under Section 2.1.1, Emissions Management Rules.

On average, MCESD is working on at least one of its three NAPs and submits most of its emission management rules as SIP revisions each year. Once every three years, Maricopa County prepares a SIP periodic emission inventory, a process which consumes approximately 18 months. Major ongoing efforts are projected in the years ahead to develop maintenance area plans and new plans for the revised ozone and particulate matter standard. All areas returning to attainment are required by EPA to have a maintenance plan.

Workload Analysis -

**Table 2.1.2.A State Implementation Plans  
Planning Section Workload Calculations Hours/Year**

SIP/Project	FY 1999	FY 2000	FY 2001
Phoenix PM10 Serious NAP	700	700	700
Conformity SIP (comment & participate in development)	50	50	50
Phoenix CO Serious NAP	700	300	300
Agricultural BMPs SIP (participate)	50	50	50
Phoenix Ozone Serious NAP & 9% ROP	700	500	300
New NAAQS Implementation	100	100	700
Program Effectiveness Evaluations (one per year)	200	400	400
SIP Tracking	300	300	300
<b>TOTAL</b>	<b>2800</b>	<b>2400</b>	<b>2800</b>

Workload Discussion - If NAPs are not adopted or amended as necessary, the state faces federal sanctions and the imposition of federal implementation plans. NAP and SIP documentation and requirements have increased substantially as a result of the 1990 CAAA.



Financial Analysis -

**Table 2.1.2.B SIP Revisions and Non-Attainment Area Plans & Submittals  
Workload Calculation**

Planning	Total hrs/yr
Title V	149
Non-Title V	651
Non-Recoverable	1867
Total	2667
Title V	149
% Workload	6
Non-Title V	651
% Workload	24
Non-recoverable	1867
% Workload	70

**Table 2.1.2.C SIP Areawide Control Non-Attainment Area Plans and Submittals  
Financial Requirements**

	FTEs	Total
Technical	1.67	\$80,720
Managerial	0.19	\$10,976
Support Staff	0.27	\$7,349
Total FTEs	2.12	
Proposed Budget		
Salaries		\$99,045
ERE		\$20,860
Subtotal		\$119,905
P & O		\$0
Travel In		\$0
Travel Out		\$1,059
Other Operations		\$1,059
Equipment		\$6,663
Subtotal		\$8,781
Administrative		\$20,763
Total		\$149,449

Financial Discussion - Title V and Non-Title V costs associated with this task are cost recoverable and funded by the Permit Fee Fund. The non-recoverable portion of this program is funded by the continuing Federal grant from EPA, assuming an amount of about \$930,000. If the actual award is less than the projection, expenditures for this and all federally-funded tasks will be adjusted.

### 2.1.3 Statewide Visibility Program Development

Plain Language Description - ADEQ also plans to address visibility issues for urban and scenic areas of Arizona consistent with State law. Maricopa County will have a **minor** role in this program.

General Description - The 1977 and 1990 federal CAAA require reasonable progress toward the national visibility goal in Federal Class I Areas. The CAAA require that states develop SIP revisions to protect visibility in these Class I areas and to provide for a minimal level of visibility monitoring in these areas. Currently, Arizona is one of the approximately 26 states which lack approved visibility plans. Under the authority of the requirements of Senate Bill 1029 (1989), Senate Bill 1430 (1992), and the CAAA, and consistent with the Arizona Smoke Management Plan, ADEQ has expanded its visibility program. Federal visibility rules have been promulgated which include "Regional Haze," at which time ADEQ will develop the Visibility SIP Revision, due likely in 2003 and 2008 for other Class I areas.

Maricopa County will have a limited support role in this program by providing source data, monitoring data, and reviewing program work products, and implementing identified control measures for the plan.

Assumptions - Based on past experience, Maricopa County may have data or some input into this State program. An annual average of 100 hours of staff time from monitoring and planning is assumed for tasks projected in support of the Statewide Visibility Program.

#### Workload Analysis -

**Table 2.1.3.A Statewide Visibility Program Development Workload Calculations**

	FY 1999 (hrs/yr)	FY 2000 (hrs/yr)	FY 2001 (hrs/yr)
Monitoring			
Title V	10	10	10
Non-Title V	20	20	20
Non-recoverable	20	20	20
Planning			
Title V	10	10	10
Non-Title V	20	20	20
Non-recoverable	20	20	20
Total	100	100	100
Title V	20	20	20
% Workload	20	20	20
Non-Title V	40	40	40
% Workload	40	40	40
Non-recoverable	40	40	40
% Workload	40	40	40

Workload Discussion - In FY 2001, ADEQ anticipates meeting with Federal Land Managers and other interested parties to coordinate development of a SIP for visibility meeting Clean Air Act Amendments. The SIP will be drafted in FY 2003 for submittal to EPA.

A State plan for visibility protection in the Phoenix and Tucson urban areas and Arizona scenic and sensitive areas, developed in coordination with local residents and elected officials, is expected in the not-too-distant future. For this fee analysis, Maricopa County assumes 100 hours of support in terms of ambient monitoring data collection and transfer and document review for this State program.

## Financial Analysis -

**Table 2.1.3.B Statewide Visibility Program Development Financial Requirements**

	FTEs	Total
Total FTEs	0.08	
Technical	0.06	\$3,027
Manager	0.01	\$593
Support	0.01	\$276
Proposed Budget		
Salaries		\$3,895
ERE		\$817
Subtotal		\$4,712
P & O		\$0
Travel In		\$312
Travel Out		\$41
Other Operations		\$41
Equipment		\$259
Subtotal		\$654
Administrative		\$813
Total		\$6,180

### Financial Discussion

Title V costs associated with this task are cost recoverable and funded by the Permit Fee Fund. The non-recoverable portion of this program is funded by the continuing Federal grant from EPA, assuming an amount of about \$930,000. If the actual award is less than the projection, expenditures for this and all federally-funded tasks will be adjusted.

### **2.1.4 General Environmental Studies**

Not applicable to Maricopa County

### **2.1.5 Environmental Impact Assessments**

Plain Language Description - Maricopa County is required to analyze and provide written comments on environmental assessments and impact statements.

General Description - Maricopa County receives very few statements and environmental assessments for review and comment by the three media officers. The comments provided in response to these submittals are often the only formal communications between the agency and those conducting the projects. In some situations, this assessment process provides the only notification to the agency of a project that may degrade the air quality.

Assumptions - Historically, Maricopa County has reviewed and commented on approximately 3 minor environmental impact assessments per year requiring a total of 80 hours of work to complete. Simple assessment review and comment rarely require more than telephone contact with agencies proposing projects. Complex assessments and projects often require coordination with other Divisions within MCESD and meetings with agencies proposing these projects.

Work includes researching all elements of a project that affect air quality, determinations of the impact of those project elements, and providing recommendations to mitigate the impact to air quality.

Workload Analysis -

**Table 2.1.5.A Environmental Impact Assessments Workload Calculations**

	FY 1999 hrs/yr	FY 2000 hrs/yr	FY 2001 hrs/yr
Permits			
Title V	34	34	34
Non-recoverable	15	15	15
Planning			
Non-Title V	144	144	144
Non-recoverable	47	47	47
Total	240	240	240
Title V	34	34	34
% Workload	14	14	14
Non-Title V	144	144	144
% Workload	60	60	60
Non-recoverable	62	62	62
% Workload	26	26	26

Workload Discussions -

For this fee analysis, the assumptions described above are used to define this program for future years. No increase in the workload is expected.

## Financial Analysis -

**Table 2.1.5.B Environmental Impact Assessments Financial Requirements**

	FTEs	Total
Total FTEs	0.20	
Technical	0.15	\$7,265
Manager	0.02	\$1,422
Support	0.02	\$661
Proposed Budget		
Salaries		\$9,349
ERE		\$1,961
Subtotal		\$11,310
P & O		\$0
Travel In		\$748
Travel Out		\$99
Other Operations		\$99
Equipment		\$623
Subtotal		\$1,569
Administrative		\$1,952
Total		\$14,831

Financial Discussion - Title V and Non-Title V costs associated with this task are cost recoverable and funded by the Permit Fee Fund. The non-recoverable portion of this program is funded by the continuing Federal grant from EPA, assuming an amount of about \$930,000. If the actual award is less than the projection, expenditures for this and all federally-funded tasks will be adjusted.

### **2.1.6 General Policy Development**

Plain Language Description - The Maricopa County Environmental Services Department maintains a policy management system, this task describes the AQD's participation in that process.

General Description - The workload is composed of tasks associated with the development of general program policies and procedures. Work will include identification of new policy/procedure requirements, policy/procedure revision requirements, and prioritization of those requirements, needs assessments for new or revised legislation and rules, and prioritization and development of same.

Assumptions - Hours shown are associated with the decisions reflecting changes in statute, rule, policy, procedure or process.

Workload Analysis -

**Table 2.1.6.A General Policy Development Workload Calculations**

Tasks	FY 1999 hrs/yr	FY 2000 hrs/yr	FY 2001 hrs/yr
Permits			
Title V	82	82	82
Non-Title V	237	237	237
Compliance			
Title V	82	82	82
Non-Title V	237	237	237
Monitoring			
Non-Title V	232	232	232
Non-recoverable	123	123	123
Planning			
Non-recoverable	183	183	183
Total	1176	1176	1176
Title V	164	164	164
% Workload	14	14	14
Non-Title V	706	706	706
% Workload	60	60	60
Non-recoverable	306	306	306
% Workload	26	26	26

Workload Discussion –

Department policies are developed as needed, when there is a new rule or a change in an existing rule. Depending on complexity, each policy takes about 40 hours to develop and there are about ten per year.

## Financial Analysis -

**Table 2.1.6.B General Policy Development Financial Requirements**

	FTEs	Total
Total FTEs	0.97	
Technical	0.74	\$35,598
Manager	0.12	\$6,970
Support	0.12	\$3,241
Proposed Budget		
Salaries		\$45,809
ERE		\$9,610
Subtotal		\$55,419
P & O		\$0
Travel In		\$0
Travel Out		\$485
Other Operations		\$485
Equipment		\$3,051
Subtotal		\$4,021
Administrative		\$9,564
Total		\$69,004

Financial Discussion - Title V and Non-Title V costs associated with this task are cost recoverable and funded by the Permit Fee Fund. The non-recoverable portion of this program is funded by the continuing Federal grant from EPA, assuming an amount of about \$930,000. If the actual award is less than the projection, expenditures for this and all federally-funded tasks will be adjusted.

### **2.1.7 Quality Initiatives and Strategic Planning**

Plain Language Description - Maricopa County has voluntarily committed itself to incorporate the principles of quality in all its internal and external relationships and activities. Elements of this effort include:

- Customer Focus
- Team problem-solving through analysis and measurement;
- Commitment to continuous improvement.

General Description - Quality initiatives are coordinated throughout MCESD by the Department's Management Team.

When this analysis was first conducted in 1993, MCESD conducted a highly structured quality program which consisted of the following activities:

- Work Process Description and Qualification;
- Updating Work Process Descriptions;
- Assessment of customer satisfaction, and



- Annual review and update of work processes through a Continuous Improvement Strategy.

Over time, quality elements have been incorporated into working routines throughout AQD, as evidenced by our commitment to stakeholder involvement and reliance on cross-section teams for problem-solving and management of special projects.

Assumptions - Failure to invest in quality can result in processes that are not cost effective and that when employed lead to less than acceptable outputs. Quality systems allow for continued improvement of organizational processes.

#### Workload Analysis -

**Table 2.1.7.A Quality Initiatives and Strategic Planning Workload Calculations**

Tasks	FY 1999 hrs/yr	FY 2000 hrs/yr	FY 2001 hrs/yr
Permits			
Title V	86	86	86
Non-Title V	711	711	711
Compliance			
Title V	87	87	87
Non-Recoverable	103	103	103
Monitoring			
Non-Recoverable	104	104	104
Planning			
Non-Recoverable	104	104	104
<b>Total</b>	<b>1195</b>	<b>1195</b>	<b>1195</b>
Title V	173	173	173
% Workload	14	14	14
Non-Title V	711	711	711
% Workload	59	59	59
Non-recoverable	311	311	311
% Workload	26	26	26

Workload Discussion - Although the approach to quality has changed over time, as discussed earlier, quality initiatives continue to be conducted within AQD. The Division maintains a vision, mission and values statement which is updated annually as part of our strategic planning effort. In preparation for this analysis, flow charts were developed for all permitting-related processes so that actual processing times could be quantified. This effort will enable AQD to look for opportunities for streamlining of those processes that will not be affected by the adoption of the Facility Changes Rule. New processes created by that rule will affect the workload in the Permits and Compliance Sections, and baseline flowcharts will be helpful in quantifying those changes. For the original analysis we estimated that each of the sections would commit 310 hours to this task. With the change to a less structured approach, hours have been adjusted downward.

Quality activities performed by the Division have been attributed 14.8% to the Title V Program and 59.2% to the Non-Title V Program, based on current sources, population characteristics. The non-recoverable portion of this program is 26%.

Financial Analysis -

**Table 2.1.7.B Quality Initiatives and Strategic Planning Financial Requirements**

	FTEs	Total
Total FTEs	<b>0.99</b>	
Technical	0.75	\$36,173
Manager	0.12	\$7,083
Support	0.12	\$3,293
Proposed Budget		
Salaries		<b>\$46,549</b>
ERE		\$9,765
Subtotal		\$56,314
P & O		\$0
Travel In		\$0
Travel Out		\$493
Other Operations		\$493
Equipment		\$3,100
Subtotal		\$4,086
Administrative		\$9,718
Total		<b>\$70,119</b>

Financial Discussion - Title V and Non-Title V costs associated with this task are cost recoverable and funded by the Permit Fee Fund. The non-recoverable portion of this program is funded by the continuing Federal grant from EPA, assuming an amount of about \$930,000. If the actual award is less than the projection, expenditures for this and all federally-funded tasks will be adjusted.

## 2.2 Industrial Source Control and Permitting

Program Description - The Air Quality Division (AQD) has developed, obtained federal approval for, and implemented a permit program for all stationary and portable sources of air pollution. The Air Quality Permits Program regulates sources of air pollution that are subject to federal and state regulations. Those sources that are subject to only federal regulations, acid rain, a combination of federal, state, and county regulations, or our major sources, are defined as being Title V sources. All other sources, those that are not major and are only subject to county/state regulations are defined as Non-Title V sources. Title V and Non-Title V sources are further classified into subcategories as follows:

**Table 2.2.A Title V and Non-Title V Subcategories**

<b>Title V Simple</b>	<b>Title V Complex</b>	<b>Non-Title V Simple</b>	<b>Non-Title V Complex</b>
Simple True Minors	Complex Synthetic Minors	Simple True Minors	Complex Synthetic Minors
Simple Synthetic Minors	Major for Part 70 only Major for NSR	Simple Synthetic Minors	Complex True Minors

Pursuant to Maricopa County Air Pollution Control Rules and Regulations Rule 200, a new source of air pollution is required to obtain an air quality permit prior to construction or operation. In addition, those sources that have already received an air quality permit (existing source) are required to renew their permits prior to expiration. Once a permit has been issued, a source is allowed to make changes to its permit utilizing the following methods: major permit modification for Title V sources, a non-minor permit modification for Non-Title V sources, minor permit modification, a permit transfer, an administrative amendment, and a facility change without a permit modification. In addition, a General Permit program has been implemented to cover a large number of sources that are similar in nature.

Once a permit application is received, the processing of the application can typically be broken down into five major categories

- **Application Activities:** This activity includes the initial review of the application for completeness and requests for additional information and the review of such information.
- **Modeling:** This activity includes the evaluation of information to determine its impact on the National Ambient Air Quality Standards and the Arizona Ambient Air Quality Guidelines.
- **Draft Permit Development:** This activity includes the review of the application from a technical and regulatory perspective. This review is concluded by the development of a draft permit and supporting technical documents.
- **Public Participation:** This activity includes providing the public and the EPA (if applicable) an opportunity to comment on the draft permit and supporting documents. This activity results in the development of a responsiveness summary which responds to the comments and states what changes were made to the draft permit and supporting documents.
- **Review and Finalization:** This activity includes internal review and sign off by different programs within AQD. This activity also includes responding to comments made by the source during their review of the permit.

General Description - Section 2.2 of this Workload Analysis is broken down into nine subsections which provide a cost analysis for conducting each activity. The following Table 2.2.B provides an overview of the number of Full Time Employees (FTE) that will be required to conduct the activities listed in this section of the workload analysis:

**Table 2.2.B Summary of FTE Requirements for Section 2.2**

	New Source Review	Existing Sources	Permit Program Coordination	General Permits	Permit Modifications	Permit Appeals	Total
FTE							
Technical	2.13	9.54	0.40	0.77	3.47	0.14	16.45
Managerial	0.30	1.36	0.00	0.12	0.50	0.02	2.30
Support Staff	0.34	1.53	0.00	0.08	0.56	0.02	2.52
Total	2.78	12.43	0.40	0.97	4.52	0.18	21.28
Proposed Budget							
Salaries	\$130,703	\$585,141	\$19,373	\$46,550	\$212,767	\$8,277	\$1,002,809
ERE	\$27,456	\$122,917	\$4,024	\$9,689	\$44,695	\$1,739	\$210,519
Subtotal	\$158,158	\$708,058	\$23,396	\$56,239	\$257,462	\$10,015	\$1,213,328
P & O	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Travel In	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Travel Out	\$1,389	\$6,217	\$200	\$483	\$2,261	\$88	\$10,638
Other Operations	\$1,389	\$6,217	\$200	\$483	\$2,261	\$88	\$10,638
Equipment	\$8,735	\$39,106	\$1,254	\$3,039	\$14,219	\$553	\$66,911
Subtotal	\$11,513	\$51,540	\$1,658	\$4,006	\$18,741	\$729	\$88,187
Administrative	\$27,325	\$122,333	\$4,003	\$9,640	\$44,482	\$1,730	\$209,513
TOTAL	\$196,996	\$881,931	\$29,057	\$69,884	\$320,685	\$12,475	\$1,511,028

Combining the number of FTEs in Table 2.2.B with the FTE requirements from Sections 2.1, 2.3, 2.4, and 2.6 of this workload analysis results in the following total FTE requirements:

**Table 2.2.C Total FTE Requirements (Sections 2.1, 2.2, 2.3, 2.4)**

Section Title	Section	FTE	FY 2000-2002		
			Technical	Managerial	Support Staff
New Source Permit Review	2.2.1	2.78	2.13	0.30	0.34
Existing Source Permit Review	2.2.2	12.43	9.54	1.36	1.53
Permitting Program Coordination & Administration	2.2.3	0.40	0.40	0.00	0.00
General Permits	2.2.4	0.97	0.77	0.12	0.08
Permit Adjustments	2.2.8	4.52	3.47	0.50	0.56
Permit Appeals	2.2.9	0.18	0.14	0.02	0.02
Totals		21.28	16.45	2.30	2.52

The Permits Section currently has 13 positions. At this staffing level the Section struggles to meet permit issuance timelines, keep up with rule revisions necessitated by the area's reclassifications to "serious" for three pollutants and to implement community outreach. In addition, increases in staffing will allow the Section to complete documentation reports on Title V and the large Non-Title V permits issued. The Permits Sections should also be able to increase its participation in internal teams.

To streamline operations, AQD, through coordination with industry stakeholders, revised the permitting procedures for modifying Non-Title V permits. Following the adoption of the Management of Facility Changes rule revisions, the number of applications for non-minor permit amendments decreased from 30 to 20 per year and applications for minor modifications decreased from 270 to 120 per year. Further, MCESD has issued six general permits for gasoline dispensing tanks, fuel burning equipment, vehicle refinishing, dry cleaning, surface coating and graphic arts. These six general permits may cover 2000 to 2100 Non-Title V sources.

During spring 1999 and 2002, the MCESD completed a market study and updated existing position classifications. As a result, a new tiered system was developed based upon years of experience and performance. As a result of the market study, salaries will increase as funds become available. The purpose of the market study and reclassification was to improve the Department's chances of being able to hire and retain qualified staff. In addition, customers' interaction with the Department will receive higher quality processing of applications and requests for information.

### **2.2.1 New Sources Permit Review**

Plain Language Description - This task involves those activities which are associated with the issuance of permits to proposed new facilities.

General Description - The County's unitary permit program requires approval prior to construction of new sources of regulated air pollutants. The activities associated with issuing these permits are discussed in Section 2.2 under Program Description.

Some permits require more time for each task and are very complex to analyze. For example, control technology determinations for attainment area sources triggering the Prevention of Significant Deterioration (PSD) Program and non-attainment area sources triggering New Source Review (NSR) require extensive analysis of controls used on like industries and control requirements imposed by air quality agencies throughout the United States. Permits which require this level of analysis tend to be very time-consuming to review, and are hereafter referred to as complex permits. Permits requiring less analysis and which are less time consuming are referred to as simple permits. For the purpose of this analysis, simple and complex permits have been differentiated by source category in Section 2.2 under General Description.

Ambient air modeling of simple sources involves an in-house SCREEN (or higher level models) analysis with results compared to National Ambient Air Quality Standards (NAAQS). Ambient air analysis activities associated with complex sources that involve PSD/NSR permit review include reviewing refined modeling performed by the applicant, checking any on-site monitoring, reviewing the modeling protocol, checking the appropriateness of the model and assumptions used, and interpreting the results.

The County's new source permitting program also includes review of sources of Hazardous Air Pollutants (HAPs). A Maximum Achievable Control Technology (MACT) requirement, if applicable, needs to be established and imposed for each affected source prior to source construction. The activities associated with the permitting of MACT sources require extensive analysis. Sources requiring MACT analysis are considered complex. Moreover, the USEPA keeps promulgating new MACTs on a regular basis; and research is needed to identify the population of sources likely to be affected by it.

Assumptions - The amount of hours to process a permit for a given category under the new source program identified in Table 2.2.1.A were developed by identifying all the activities associated with the issuance of that permit and determining the amount of technical staff time required to complete the activity. Based upon past program experience the Permit Section

expects that there will be a total of three public hearings associated with the processing of permit applications. Of these three hearings two are associated with Title V complex applications and one is associated with Non-Title V complex applications.

Table 2.2.1.B was created using data from permitting log books and the MCESD's Environmental Management System (EMS). To produce these data, permitting log books were reviewed to determine the number of applications that were received for new sources of air pollution during FY 96, 97, and 98. These data were then broken down into Title V and Non-Title V categories according to Section 2.2 of this workload analysis. Utilizing these data the Permit Section applied a 5% growth factor to produce the numbers for FY 99, 00, and 01. This 5% growth factor was based on population growth and inflation in Maricopa County. The Permit Section expects that it will process every fiscal year six new applications that have NSR/PSD related issues associated with them. These applications are included in the category labeled Title V Complex. It has been estimated by the Permit Section that five percent of the total population of applications are usually complex.

It should be noted that the above-mentioned time allotments account for only those activities which occur before permit issuance. The time allocated for permit appeals is not included in this section because it occurs after the permit is issued (see Section 2.2.9).

**Table 2.2.1.A New Source Permit Review Hours Per Permit**

Activity	Sections	Title V Hours/Permit		Table A Hours/Permit		Table B Hours/Permit	
		simple	complex <sup>1</sup>	simple	complex	simple	complex
Application Activities	Permits	10	37 (41)	4	4	1	1
	Compliance	0	0	0	0	0	0
Modeling	Permits	28	76 (170)	4	6	0	0
	Compliance	0	0	0	0	0	0
Draft Permit	Permits	68	229 (343)	32	70	3	3
	Compliance	0	0	0	0	0	0
Public Participation	Permits	16	105	8	30	0	0
	Compliance	0	0	0	0	0	0
Review & Finalize	Permits	18	37 (44)	6	10	1	1
	Compliance	0	0	0	0	0	0
TOTAL Tech Hrs/Permit	Permits	140	484 (703)	54	120	5	5
	Compliance	0	0	0	0	0	0
Totals		140	484 (703)	54	120	5	5

<sup>1</sup>Hours in parentheses reflect NSR/PSD related issues.

**Table 2.2.1.B New Source Permit Review - Number of Sources By Category**

CATEGORY	FY 1999	FY 2000	FY 2001
New Title V – Simple	0	0	0
New Title V - Complex <sup>1</sup>	6	6	4
New Non-Title V - Simple <sup>2</sup>	25	25	25
New Non-Title V – Complex	8	8	8
New Non-Title V – Synthetic Minor Complex	4	4	4
TOTAL	43	43	41

<sup>1</sup>Assumes six new complex Title V sources per year, 2 with NSR/PSD related issues.

<sup>2</sup>Assumes 100 new Simple Non-Title V will be General Permits.

Table 2.2.1.C lists the total number of hours required to process new source air quality permit applications by fiscal year. This was determined by multiplying hours in Table 2.2.1.A by the number of permits in Table 2.2.1.B.

#### Workload Analysis -

**Table 2.2.1.C New Source Permit Review Workload Calculations**

Projected Permits Issued	# of new permits FY 1999 to 2001	FY 1999 hrs/yr	FY 2000 hrs/yr	FY 2001 hrs/yr
Total Sources				
Title V -Simple	0	0	0	0
Title V -Complex <sup>1</sup>	6	3342	3342	2374
Non-Title V Simple <sup>2</sup>	25	125	125	125
Non-Title V Complex	8	432	432	432
Non-Title V Synthetic Minor	4	480	480	480
Total Hours		4379	4379	3411
FTEs		2.74	2.74	2.13

<sup>1</sup>Assumes six new complex Title V sources per year, 2 with NSR/PSD related issues.  
<sup>2</sup>Assumes 100 new Simple Non-Title V will be General Permits.

#### Workload Discussion -

#### Financial Analysis -

**Table 2.2.1.D New Source Review Financial Requirements**

	FTE	Total
Total FTEs	<b>2.78</b>	
Technical	2.13	\$103,251
Managerial	0.30	\$18,051
Support Staff	0.34	\$9,401
Proposed Budget		
Salaries		<b>\$130,703</b>
ERE		\$27,456
Subtotal		\$158,158
P & O		\$0
Travel In		\$0
Travel Out		\$1,389
Other Operations		\$1,389
Equipment		\$8,735
Subtotal		\$11,513
Administrative		\$27,325

TOTAL		\$196,996
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Financial Discussion - Title V and Non-Title V costs associated with this task are cost recoverable and funded by the Permit Fee Fund.

## 2.2.2 Existing Source Permit Review

Plain Language Description - This task included all of the activities associated with the renewal of existing air quality permits.

General Description - Under the Maricopa County Air Pollution Control Rules and Regulations, the Permit Section is required to process applications to renew expired and expiring permits for Title V and Non-Title V source categories. A high percentage of the renewal permits that will be processed in fiscal years 99, 00, and 01 were issued utilizing the rules prior to November 15, 1993. A significant amount of time will be required to update major and minor source permits to reflect the new rules.

- Hours for conducting a modeling analysis are typically not required, except when the source requests a revision to their permit during its renewal.
- Activities such as site visits and the review of previously issued permits are included in the estimation of Application Activities and Draft Permit hours for renewal permits (not included for minor sources).
- The review of NSR related issues are not included in the estimation of Draft permit hours for Title V complex sources.

Assumptions - Final interim approval of Arizona's operating permit program on November 26, 1996, stipulated that a third of all the major source Title V permits be issued every year for the next three years. In order to meet the federal requirements while maintaining an even workload, the Permits Section will issue the major source Title V permits according to the schedule listed in Table 2.2.2.B. The application deadlines are staggered to allow enough time for completeness determinations. The assumptions in Table 2.2.2.B. have been included in Table 2.2.2.A.

The amount of hours to process a permit for a given category under the existing source program identified in Table 2.2.2.A were developed by identifying all the activities associated with the issuance of that permit and determining the amount of technical staff time required to complete the activity.

Table 2.2.2.B was created based upon the number of minor source and major source permits that are expected to be renewed in FY99, 00, and 01. To produce the number of minor source permits that will be renewed EMS was first queried to determine the number of minor source permits that have expired prior to FY99 or will expire in FY99. A schedule for the submittal of applications to renew these permits was then developed and the numbers are reflected in this table. EMS was then queried a second time to determine the number of minor source permits that will expire in FY 00 and 01. These numbers were then reflected in the table based upon the fiscal year in which they would expire. Data from both queries were sorted as Title V and Non-Title V categories according to section 2.2 of this workload analysis. In the process of sorting the data, source categories that could be renewed under a general permit were identified. See Section 2.2.4 for further discussion.



Based upon past program experience the Permit Section expects that there will be a total of two public hearings associated with the processing of the permit applications. These two hearings are associated with either a Title V or a Non-Title V complex application.

It should be noted that the above-mentioned time allotments account for only those activities which occur before permit issuance. The time allocated for permit appeals is not included in this section because it occurs after the permit is issued (see Section 2.2.9).

Permit processing will be done primarily by the Permit Section.

**Table 2.2.2.A Existing Source Permit Review Hours Per Permit**

Activity	Sections	Title V Hours/Permit		Table A Hours/Permit		Table B Hours/Permit
		simple	complex	simple	complex	simple
Application Activities	Permits	10	48	4	4	1
	Compliance	2	8	0	2	0
Modeling	Permits	3	7	8	6	0
	Compliance	0	0	0	0	0
Draft Permit	Permits	68	195	28	50	3
	Compliance	0	0	0	0	0
Public Participation	Permits	16	86	10	30	0
	Compliance	0	0	0	0	0
Review & Finalize	Permits	17	37	10	10	1
	Compliance	5	38	0	5	0
TOTAL Tech Hrs/Permit	Permits	114	373	60	100	5
	Compliance	7	46	0	7	0
Totals		121	419	60	107	5

**Table 2.2.2.B Existing Source Permit Review Number of Permits Issued by Category**

Projected Permits Issued	FY 1999	FY 2000	FY 2001
Title V – Simple	0	0	0
Title V - Complex	17	17	17
Non-Title V Small	91	141	248
Non-Title V Medium	37	75	61
Non-Title V Large	24	40	45
Total	169	273	371

Workload Analysis -

**Table 2.2.2.C Existing Source Permit Review Workload Calculations**

Projected Workload Hours	FY 1999 hrs/yr	FY 2000 hrs/yr	FY 2001 hrs/yr	Total hrs/yr	Average hrs/yr
Title V – Simple	0	0	0	0	0
Title V – Complex	7123	7123	7123	21369	7123
Non-Title V Small	455	705	1240	2400	800
Non-Title V Medium	2220	4500	3660	10380	3460
Non-Title V Large	2568	4280	4815	11663	3888
FTEs - Title V	4	4	4	13	4
Hours - Title V	7123	7123	7123	21369	7123
FTEs - Non-Title V	3	6	6	15	5
Hours - Non-Title V	5243	9485	9715	24443	8148

Workload Discussion -

Financial Analysis -

**Table 2.2.2.D Existing Source Permit Review Financial Requirements**

	FTE	Total
Technical	9.54	\$462,243
Manager	1.36	\$80,812
Support	1.53	\$42,086
Total FTEs	<b>12.43</b>	
Proposed Budget		
Salaries		<b>\$585,141</b>
ERE		\$122,917
Subtotal		\$708,058
P & O		\$0
Travel In		\$0
Travel Out		\$6,217
Other Operations		\$6,217
Equipment		\$39,106
Subtotal		\$51,540
Administrative		\$122,333
Total		<b>\$881,931</b>

Financial Discussion - Title V and Non-Title V costs associated with this task are cost recoverable and funded by the Permit Fee Fund.

### 2.2.3 Permitting Program Coordination and Administration

Plain Language Description - This task includes activities needed to support the permitting program.

General Description - This section includes the following activities associated with program coordination and administration:

- Tracking of applications;
- Tracking of permit status;
- Providing program guidance for permit writers (including permit writer manuals);
- Providing program guidance for applicants;
- Developing and maintaining reporting forms;
- Revising program materials to meet changing federal requirements and State needs;
- Providing overall program management; and
- Providing data base and other information management.

Assumptions - It is expected that the Air Quality Permits Section will continue to need a total of 1.38 FTEs for these activities. The workload is due to the extensive requirements of the permitting program including public notice, maintenance of permit dockets, and arranging public meetings and hearings.

Workload Analysis -

**Table 2.2.3.A Permitting Program Coordination and Administration Workload Calculations**

Workload Estimate	FY 1999	FY 2000	FY 2001
Permit			
Title V	192	192	192
Non-Title V	448	448	448
Total	640	640	640
Title V	192	192	192
% Workload	30	30	30
Non-Title V	448	448	448
% Workload	70	70	70

Workload Discussion -

## Financial Analysis -

**Table 2.2.3.B Permitting Program Coordination and Administration  
Financial Requirements**

	FTEs	Total
Technical	0.40	\$19,373
Managerial	0.00	\$0
Support	0.00	\$0
Total	<b>0.40</b>	
Proposed Budget		
Salaries		<b>\$19,373</b>
ERE		\$4,024
Subtotal		\$23,396
P & O		\$0
Travel In		\$0
Travel Out		\$200
Other Operations		\$200
Equipment		\$1,258
Subtotal		\$1,658
Administrative		\$4,003
Total		<b>\$29,057</b>

Financial Discussion - Title V and Non-Title V costs associated with this task are cost recoverable and funded by the Permit Fee Fund.

### **2.2.4 General Permits**

Plain Language Description - This task involves activities associated with writing a general permit and those associated with processing applications once the general permit has been issued.

General Description - A general permit covers sources that are similar in nature, have similar emissions, and are subject to similar requirements. A general permit differs from an individual permit in that it can apply to more than one source, is less expensive, and takes a shorter amount of time to obtain coverage. Once a general permit has been established, sources may apply to be covered under it.

When a source applies for an individual permit it must go through its own public notice and possibly a public hearing. Since the general permit is written to cover sources that are similar, it must go through a public notice and a public hearing only once. Each source that is covered by the general permit will not be required to go through its own public notice and public hearing. However, a list of sources that have been covered under the general permit will be published periodically. This publication will be the public's only notification that a source has been given coverage under the general permit.

Once a general permit has been developed, sources may apply for coverage under the general permit instead of obtaining individual permits. If the sources meet the criteria for coverage under the general permit, an Authorization to Operate (ATO) is issued.

The general permits program can be broken into two distinct stages. The first involves development of the general permit, which includes determination of the source category, rule applicability determination, modeling activities, drafting of the permit and associated documents, internal and external review, public participation, and finalization of all documents. It also includes notification to sources of general permit availability once it is approved. The second stage involves processing requests for coverage under the general permit. It includes reviewing applications; notification of acceptance or denial; issuance of ATOs and periodic notice to the public of coverage approvals.

Development of a general permit will require a significant amount of time as the permit regulates a large number of sources. A large amount of time is required because several public hearings are typically held prior to issuance of each general permit. Since many sources are regulated under each permit, additional time for handling public inquiries and comments is necessary.

Processing of requests for coverage under the general permit takes a substantially smaller amount of time as an individual permit is not written and public participation is through notification only.

#### Assumptions -

To determine the workload associated with the general permit program, permitted industries were sorted by source type and potential general permit candidates were identified. Table 2.2.4.A shows the results of this research. This information is further summarized to create Table 2.2.4.C.

**Table 2.2.4.A General Permit Development and Processing Assumptions**

Source Category	# of Affected Sources	FY Gen Permit will be Developed			Number of General Permit Coverages that will be Processed		
		FY 99	FY 00	FY 01	FY 99	FY 00	FY 01
Gas Stations*	1198				50	50	50
Body Shop	159	x			0	5	30
Fuel Burning	469	x			2	46	75
Concrete Batch Plant	25		x		0	1	8
Crematories	14		x		0	0	7
Paint Booths	176		x		0	0	20
Soil Remediation	29		x		0	2	10
Abrasive Blasting	8			x	0	0	1
Dry Cleaners	245			x	0	0	20
Sand & Gravel	14			x	0	0	1
<b>Total Sources</b>	<b>2337</b>				<b>52</b>	<b>104</b>	<b>222</b>

\* Gas Station General Permit became effective 11/98

The breakdown of hours in Tables 2.2.4.B and 2.2.4.C were developed as follows: The amount of hours to develop a general permit were developed by identifying all the activities associated with the development of a general permit and determining the amount of technical staff time required to complete the activity. The same was done to determine the amount of time to process a coverage under a general permit.

The workload associated with issuing a general permit was multiplied by the number of general permits targeted for issuance in each year, and the time to process an application was multiplied by the expected number of applicants. The issuance and application processing times were then added to get a total number of hours per year.

**Table 2.2.4.B General Permits - Hours to Develop a General Permit**

Activity	Sections	Hours/Permit
Application Activities	Permits	16
	Compliance	0
Modeling	Permits	13
	Compliance	0
Draft Permit	Permits	33
	Compliance	5
Public Participation	Permits	9
	Compliance	7
Review & Finalize	Permits	17
	Compliance	0
TOTAL Tech Hrs/Permit	Permits	<b>87</b>
	Compliance	<b>12</b>
Totals		<b>100</b>

**Table 2.2.4.C General Permits**  
**Number of General Permits to be Developed and Number of Coverages to be Processed**

	1999 hours	2000 hours	2001 hours
# Coverages Processed/Year	411	411	411
# Hours/Coverage	3	3	3
Total Hours	1233	1233	1233

Workload Analysis -

**Table 2.2.4.D General Permits Workload Calculations**

	1999	2000	2001
GP Development Hours	<b>100</b>	100	100
Gen Permits / Year	1.2	1.2	1.2
Total Development Hours	120	120	120
Processing Coverage	1233	1233	1233
Total	1353	1353	1353
Total FTEs	0.85	0.85	0.85

Workload Discussion -

## Financial Analysis -

**Table 2.2.4.E General Permits Financial Requirements**

	FTEs	Total
Technical	0.77	\$37,323
Manager	0.12	\$7,160
Support	0.08	\$2,067
Totals	<b>0.97</b>	
Proposed Budget		
Salaries		<b>\$46,550</b>
ERE		\$9,689
Subtotal		\$56,239
P & O		\$0
Travel In		\$0
Travel Out		\$483
Other Operations		\$483
Equipment		\$3,039
Subtotal		\$4,006
Administrative		\$9,640
Total		<b>\$69,884</b>

Financial Discussion - Non-Title V costs associated with this task are cost recoverable and funded by the Permit Fee Fund.

### **2.2.5 Pollution Prevention and Cross-Media Coordination**

Plain Language Description - These tasks would promote compliance through prevention of pollution and interfacing program requirements between air and other media.

General Description - The Pollution Prevention Act of 1990 required EPA to consider the effect of its existing and proposed programs on source reduction efforts, and to review regulations of the Agency prior and subsequent to their proposal to determine their effect on source reduction. The preamble to EPA's permit regulations also discusses cross-media coordination and pollution prevention. Specifically, "Implementing Title V presents an opportunity to eliminate pollution, rather than shift it from one medium to the other. Indeed, a cross-media analysis should highlight opportunities to avoid pollution shifting."

In addition, Title V of the CAAA requires states to establish Small Business Assistance Programs, including in part "adequate mechanisms for assisting small business stationary sources with pollution prevention and accidental release detection and prevention . . ."

Assumptions - None.

Workload Analysis -

**Table 2.2.5.A Pollution Prevention Workload Calculations**

	FY 1999 hrs/yr	FY 2000 hrs/yr	FY 2001 hrs/yr	Average Hours
Compliance Assistance				
Non-Title V	0	0	0	0
Non-Recoverable	1500	1792	2174	1822
<b>TOTAL</b>	<b>1500</b>	<b>1792</b>	<b>2174</b>	<b>1822</b>
<b>FTEs</b>	<b>0.94</b>	<b>1.12</b>	<b>1.36</b>	<b>1.14</b>
Non-Title V	0	0	0	0
% Workload Non-Title V	0	0	0	0
Non-Recoverable	1500	1792	2174	1822
% Workload Non-Recoverable	100	100	100	100

Workload Discussions - AQD will rely on the existing Pollution Prevention Program to provide services to stationary sources.

Financial Analysis -

**Table 2.2.5.B Pollution Prevention Financial Requirements**

	FTEs	Total
Technical	1.14	\$55,152
Manager	0.18	\$10,799
Support	0.18	\$5,021
<b>Totals</b>	<b>1.50</b>	
Proposed Budget		
Salaries		<b>\$70,972</b>
ERE		\$14,889
Subtotal		\$85,861
P & O		\$0
Travel In		\$4,304
Travel Out		\$752
Other Operations		\$752
Equipment		\$4,727
Subtotal		\$10,535
Administrative		\$14,817
<b>Total</b>		<b>\$111,213</b>

Financial Discussion - Non-Title V costs associated with this task are cost recoverable and funded by the Permit Fee Fund. The non-recoverable portion of this program is funded by the continuing Federal grant from EPA, assuming an amount of about \$930,000. If the actual award is less than the projection, expenditures for this and all federally-funded tasks will be adjusted.



## 2.2.6 Open Burn Permits

Plain Language Description - This task involves the processing and issuance of open burn permits.

General Description - AQD issues one type of permit under this task. A "simple permit" is issued to individuals who wish to burn materials for the purposes of weed abatement and/or fire prevention.

The review of weed abatement and fire prevention burn permit applications require a minimal amount of time to process. Each application is logged, reviewed and issued or denied.

Assumptions - AQD utilized information from its burn permit database and its familiarity with running the open burn permit program to determine the assumptions for this section of the workload analysis.

During fiscal year 1997, AQD processed 310 simple burn permit applications. The approximate amount of time spent processing a simple application is one hour. AQD expects this amount to stay fairly consistent for fiscal years 99, 00, and 01. See Table 2.2.6.A for a tabulation of the time spent processing a simple burn permit application.

In addition to processing burn permit applications, the program also involves customer service functions. Such functions typically occupy two hours per week (or 104 hours per year). This time has been included in Table 2.2.6.A.

The open burn permit program activities are cost-recoverable.

**Table 2.2.6.A Open Burn Permits**

Critical	Burn Permits
Tasks	Fireplaces
Intake	0.25
Application Review	0.25
Inspection	1.00
Reports	0.25
Totals	1.75

**Table 2.2.6.B Open Burn Permits - Number of Sources by Category**

# Burn Permits/Year	310
# Hours/Burn Permit	1.75
Total Hours	543
Number of FTE'S*	0.39

Workload Analysis -

**Table 2.2.6.C Open Burn Permits Workload Calculations**

	Hours/Year
Compliance	
Non-Title V	244
Non-Recoverable	299
Total	543
Non-Title V	244
% Workload	45
Non-Recoverable	299
% Workload	55

Workload Discussion - The total number of hours was calculated by multiplying the number of hours for each permit in Table 2.2.6.B by the number of burn permit applications processed listed in Table 2.2.6.A.

Financial Analysis - This subsection utilizes the information from the Workload Analysis subsection and information from Table 2 of the Executive Summary to calculate costs associated with the operation of the open burn permit program.

**Table 2.2.6.D Open Burn Permits Financial Requirements**

	FTEs	Total
Technical	0.39	\$14,388
Manager	0.06	\$3,675
Support	0.06	\$1,709
Total FTE	<b>0.51</b>	
Proposed Budget		
Salaries		<b>\$19,771</b>
ERE		\$4,513
Subtotal		\$24,284
P & O		\$0
Travel In		\$1,933
Travel Out		\$256
Other Operations		\$256
Equipment		\$2,660
Subtotal		\$5,105
Administrative		\$4,503
Total		<b>\$33,893</b>

Financial Discussion - Non-Title V costs associated with this task are cost recoverable and funded by the Permit Fee Fund. The non-recoverable portion of this program is funded by the continuing Federal grant from EPA, assuming an amount of about \$930,000. If the actual award is less than the projection, expenditures for this and all federally-funded tasks will be adjusted.

## 2.2.7 Air Pollution Control Equipment and Tax Certification - Not Applicable to MCESD

### 2.2.8 Permit Amendments

Plain Language Description - This section includes duties associated with the review of facility changes without modification notifications, administrative amendments, permit transfers, minor permit revisions and significant permit revisions.

General Description - Once a permit has been issued, several procedures can be used to make changes to it. The complexity of the process utilized to make these changes depends on the type of change requested. This Section calculates the costs associated with the processing of the following types of amendments:

- **Significant Permit Revisions:** These amendments take the most amount of time to process. Processing significant permit revisions includes meetings with the source, determining ambient air impacts, drafting the permit revision, reviewing the draft revision with the source, notifying and considering comments by the public, and the EPA (if applicable), and issuing or denying the final permit revision;
- **Minor Permit Revisions** These amendments require the second most amount of time to process. Processing minor permit revisions includes verifying that criteria for processing the amendment as a minor permit revision are met. In addition, processing also includes the drafting of permit changes and the Department issuing or denying the revision. A monthly public notice is published containing a list of minor permit revisions.
- **Administrative Amendments:** These amendments are utilized mostly to correct typographical errors that have occurred during the development of the permit. Processing of administrative amendments includes the review of the request, re-drafting of the permit as applicable, and approval or denial by the Department. These activities take the shortest amount of time out of all of the amendment processes;
- **Permit Transfers:** These amendments are utilized to reflect changes in ownership of the permitted source. Processing of permit transfers includes a review of the capabilities of the transferee to operate the source in compliance with applicable air pollution laws, revising the name and address of the current permittee on the permit, and issuing or denying the transfer. These activities are expected to take longer to process than an administrative amendment; and
- **Facility Changes Without Permit Revision:** These revisions are changes that do not require a permit amendment and only require notification to the Department. The change is reviewed by the Department and approval or denial is determined within 7 working days. A minimal amount of time is consumed in the processing of these amendments.

Assumptions - The workload analysis was estimated by examining the historical permitting activities for the years 1999, 2000 and 2001. As the Title V program has matured, both Title V sources and Department staff have become more knowledgeable as to how modifications are categorized and submitted. Based on engineering judgement, the 2001 data were used in place of the 3-year average for Title V sources and combined with the 3-year average for Non-Title V sources to calculate program costs. The hours needed to process permit amendments are similar to ADEQ but there are two exceptions. First, it is assumed that MCESD spends 25% more time in drafting permit conditions due to the differences in the rule packages and the SIP. Second, modeling hours are included in the permitting section hours since there is no independent section that performs modeling. There will be a number of NSR/PSD issues that will

arise due to permit amendments and the requirements associated with a Serious Nonattainment Area designation.

In AQD's experience, there are some differences in the amount of time associated with the development of administrative amendments, permit transfers, and facility changes without permit modifications for Title V and Non-Title V source categories.

**Table 2.2.8.A.1 Permit Amendment (Significant Permit Revisions - Hours/Permit)**

Tasks		Significant Revisions Title V Hours/Permit		Significant Non-Minor Revisions Non-Title V Hours/Permit	
		simple	complex <sup>1</sup>	simple	complex
Application Activities	Permits	10	24 (27)	1	1
	Compliance	0	0	0	0
Modeling	Permits	15	56 (130)	0	3
	Compliance	0	0	0	0
Draft Permit	Permits	22	74 (181)	2	4
	Compliance	8	8	5	8
Public Participation	Permits	13	77 (95)	0	4
	Compliance	7	7	3	7
Review & Finalize	Permits	17	37 (44)	1	2
	Compliance	5	5	2	5
TOTAL Tech Hrs/Permit	Permits	77	268 (477)	4	14
	Compliance	20	20	10	20
Totals		97	288 (497)	14	34

<sup>1</sup>The numbers in parentheses reflect those permits with NSR/PSD related issues. It is expected that 2 of the complex Title V revisions will involve NSR/PSD issues and there will be 2 hearings.

**Table 2.2.8.A.2 Permit Amendment (Minor Permit Revision - Hours/Permit)**

Activity	Title V Hours/Revision		Non-Title V Hours/Permit	
	Simple	Complex	Simple	Complex
Total Review and Processing Hours Per Minor Permit Revision	35	64	2	5

**Table 2.2.8.A.3 Permit Revision (Administrative Amendment - Hours/Permit)**

Activity	Title V Hours/Revision	Non-Title V Hours/Revision
Total Review and Processing Hours Per Administrative Amendment	11	2

**Table 2.2.8.A.4 Permit Amendment (Permit Transfers -Hours/Permit)**

Activity	Title V Hours/Revision	Non-Title V Hours/Revision
Total Permitting Section Review and Processing Hours Per Transfer	13	2



**Table 2.2.8.A.5 Permit Amendment  
(Facility Changes without Permit Revision - Hours/Permit)**

Activity	Title V Hrs/Revision	Non-Title V Hrs/Revision
Total Permitting Section Review and Processing Hours Per Notice	9	0.5

**Table 2.2.8.B.1 Permit Amendments  
(Significant Permit Revision - Number of Sources by Category)**

Category	FY 1999	FY 2000	FY 2001
Non-Title V Simple	6	5	4
Non-Title V Complex <sup>1</sup>	16	13	11
Title V Simple	0	0	0
Title V Complex	7	7	7

<sup>1</sup>It is expected that 2 of the complex Title V revisions will involve NSR/PSD issues and there will be 2 hearings.

**Table 2.2.8.B.2 Permit Amendments  
(Minor Permit Modifications - Number of Requests by Category)**

Category	FY 1999	FY 2000	FY 2001
Non-Title V Simple	50	52	54
Non-Title V Complex	70	73	76
Title V Simple	0	0	0
Title V Complex	44	46	23

**Table 2.2.8.B.3 Permit Amendments  
(Facility Changes without Revision [Previously Notice Changes]  
Number of Requests by Category)**

Category	FY 1999	FY 2000	FY 2001
Non-Title V	48	60	62
Title V	16	18	5

**Table 2.2.8.B.4 Permit Amendments  
(Administrative Amendments - Number of Requests by Category)**

Category	FY 1999	FY 2000	FY 2001
Non-Title V	8	10	12
Title V	2	4	4

**Table 2.2.8.B.5 Permit Amendments (Permit Transfers - Number of Requests by Category)**

Category	FY 2000	FY 2001	FY 2002
Non-Title V	28	30	32
Title V	12	12	3

Workload Analysis -

**Table 2.2.8.C Permit Amendments Workload Calculations**

Workload Estimate	FY 1999 hrs/yr	FY 2000 hrs/yr	FY 2001 hrs/yr
Permits			
Title V	5454	5600	4312
Non-Title V	794	781	777
Compliance			
Title V	140	140	140
Non-Title V	380	310	260
Total	6768	6831	5489
Title V	6248	6381	5089
% Workload	92%	93%	93%
Non-Title V	520	450	400
% Workload	8%	7%	7%

Workload Discussion -

Financial Analysis -

**Table 2.2.8.D Permit Amendments Financial Requirements**

	FTEs	Total
Technical	3.47	\$168,079
Managerial	0.50	\$29,384
Support	0.56	\$15,303
Total FTE	<b>4.52</b>	
Proposed Budget		
Salaries		<b>\$212,767</b>
ERE		\$44,695
Subtotal		\$257,462
P & O		\$0
Travel In		\$0
Travel Out		\$2,261
Other Operations		\$2,261
Equipment		\$14,219
Subtotal		\$18,741
Administrative		\$44,482
Total		<b>\$320,685</b>

Financial Discussion - Title V and Non-Title V costs associated with this task are cost recoverable and funded by the Permit Fee Fund.

## 2.2.9 Permit Appeals

Plain Language Description - This task involves duties associated with appeals of permit actions by the permit applicants or interested public to the Air Pollution Control Hearing Board.

General Description - Applicants or the public who believe that they may be adversely affected by the issuance of the permit may file a written objection to the permit during the objection period. This objection to the permit must be submitted to AQD within 10 days after the permit has been issued.

Assumptions - There have never been permit appeals at the County level. However, AQD expects to process a total of three appeals per fiscal year. These appeals are divided into two Title V and one Non-Title V.

Workload Analysis -

**Table 2.2.9.A Permit Appeals Workload Calculations**

	Title V		Table A Hours/Permit		Table B Hours/Permit		Total
	simple	complex	simple	complex	simple	complex	
Expected Appeals	0	2	0	1	0	0	3
Compliance							
Title V	8	8	8	8	0	0	32
Non-Title V	4	4	4	4	0	0	16
Permits							
Title V	40	40	24	40	0	0	144
Non-Title V	20	20	12	20	0	0	72
Total Hours/Appeal	72	72	48	72	0	0	264
Total Hours	0	144	0	72	0	0	216
Number of FTE'S*	0.00	0.09	0.00	0.05	0.00	0.00	0.14

\* Assumes 2 complex Title V permits and 1 complex Non-Title V Table A permit will be appealed.

Workload Discussion -



Financial Analysis -

**Table 2.2.9.B Permit Appeals Financial Requirements**

	FTEs	Total
Technical	0.14	\$6,538
Managerial	0.02	\$1,143
Support	0.02	\$595
Total FTEs	<b>0.18</b>	
Proposed Budget		
Salaries		<b>\$8,277</b>
ERE		\$1,739
Subtotal		\$10,015
P & O		\$0
Travel In		\$0
Travel Out		\$88
Other Operations		\$88
Equipment		\$553
Subtotal		\$729
Administrative		\$1,730
Total		\$12,475

Financial Discussion - Title V and Non-Title V costs associated with this task are cost recoverable and funded by the Permit Fee Fund.

## **2.3 Compliance Assurance**

Compliance assurance is the aggregation of all activities performed by AQD to ensure that facilities remain in compliance with all statutes, rules and permit conditions and that out of compliance facilities are returned to compliance in a timely and appropriate manner. Compliance assurance includes readily apparent activities, such as inspections and the taking of enforcement actions, as well as review of compliance documents, the development of mutually acceptable compliance schedules with non complying sources, and follow-up to each of these activities. EPA requires an adequate compliance assurance program for existing delegated federal programs.

Crucial to the successful implementation of compliance assurance is the consistent application of Maricopa County Air Pollution Control Rules and Regulations and departmental policies as they relate to compliance and enforcement actions taken by Maricopa County.

A new departmental policy under development that is worthy of singular mention is the Compliance and Enforcement Policy. This policy further defines under what conditions a Notice of Opportunity to Correct Deficiency (NOC) or Notice of Violation (NOV) should be issued as well as the necessary conditions when escalated enforcement action should be taken. Another new policy is the Inspections Procedure Policy. This policy implements procedures for the notification of the regulated sources of their inspection rights and establishes procedures for MCESD inspector activity while at the facility. This policy is currently being implemented for Title V and Large Non-Title V inspections.

Finally, compliance assurance activities are monitored and evaluated. MCESD utilizes the Environmental Management System (EMS) and other databases to track air quality inspection, compliance, and enforcement activities.

### **2.3.1 Compliance Inspections/Title V and Large Non-Title V Sources**

Plain Language Description - This task includes field oriented activities conducted by the Title V and Large Non-Title V source unit, as outlined in Section 2.3, for any facilities to which Title V requirements apply, sources which will accept limits enabling them to avoid a Title V application, and portable sources.

General Description - Inspection of the Title V and Large Non-Title V sources is necessary to determine whether or not the facilities are in compliance with all applicable air quality requirements and to ensure adequate regulatory presence to determine that the facilities are in compliance or quickly returned to compliance.

Assumptions - With the implementation of the unitary permitting program, the level of effort and scope of inspections did increase more than anticipated in the 1993 WLA; it should be noted those estimates of travel, onsite time and report preparation times estimates were revised. In October 2001, EPA reissued its Stationary Source Compliance Monitoring Strategy for state and local air agencies updating their expectations for the types and frequency of compliance inspections. Based on that strategy and resulting AQD policy, the current workload estimation is to inspect all Title V sources once every two years. Currently, AQD is unable to meet Department inspection frequency goals. Follow up inspection resource requirements related to potential enforcement cases are allocated in Section 2.3.6 and Section 2.3.9.

**Table 2.3.1.A Compliance Inspections/Title V & Large Non-Title V Sources  
Hours Per Source - FY, 1999, 2000, 2001**

Tasks	Hours
File Review & Preparation	8
Travel Time	1.5
On Site Time	3.5
Report Preparation & Review	21.7
Administrative (filing, data entry)	1.3
Totals	36

**Table 2.3.1.B Compliance Inspections/Title V Sources  
Estimated Average Number of Inspections by Category**

Number of Inspections <sup>1</sup>	96
Total Hours	3456
Number of FTE'S	2.16
<sup>1</sup> Inspections include 50 Title V, 142 Synthetic Minors and Complex Non-Title V sources inspected once every two years.	

Workload Analysis -

**Table 2.3.1.C Compliance Inspections/Title V & Large Non-Title V Sources  
Workload Calculations**

Compliance	FY 1999 hrs/yr	FY 2000 hrs/yr	FY 2001 hrs/yr
Title V	886	886	886
Non-Title V	2570	2570	2570
Total Hours	3456	3456	3456
Title V	886	886	886
% Workload	26%	26%	26%
Non-Title V	2570	2570	2570
% Workload	74%	74%	74%
Total Hours	3456	3456	3456

Workload Discussion - This workload estimate is derived from inspection records and activity summary reports for April through August of 1998 for two inspectors in the Title V and Large Non-Title V Inspection Unit. The workload reflects the inspection of each Title V and Large Non-Title V source once per year.

## Financial Analysis -

**Table 2.3.1.D Compliance Inspections/Title V and Large Non-Title V Sources  
Financial Requirements**

	Total FTEs	Total
Technical	2.16	\$80,201
Manager	0.31	\$18,289
Support	0.35	\$9,525
Total FTEs	<b>2.81</b>	
Proposed Budget		
Salaries		<b>\$108,015</b>
ERE		\$24,732
Subtotal		\$132,747
P & O		\$0
Travel In		\$8,165
Travel Out		\$1,407
Other Operations		\$1,407
Equipment		\$19,131
Subtotal		<b>\$30,110</b>
Administrative		\$24,683
Total		<b>\$187,540</b>

Financial Discussion - Title V and Non-Title V costs associated with this task are cost recoverable and funded by the Permit Fee Fund. The non-recoverable portion of this program is funded by the continuing Federal grant from EPA, assuming an amount of about \$930,000. If the actual award is less than the projection, expenditures for this and all federally-funded tasks will be adjusted.

### **2.3.2 Compliance Inspections/Small Non-Title V Sources**

Plain Language Description - This task includes field-inspection related activities for permitted facilities inspected by the small source inspection unit.

General Description - Non-Title V sources consist of facilities that may be classified minor, portable or those with coverage under a general permit. Sources in this category are scheduled for inspection anywhere from twice a year to once every three years.

Assumptions - With the implementation of the State permitting program and increased field coverage, the initial assumptions made during the 1993 workload analysis are now revised to reflect historical inspection data from 1998-2001. Program experiences have yielded new estimates.

Table 2.3.2.A assumes a baseline of 1148 scheduled inspections for operational Non-Title V sources. It assumes that for all sources other than Stage I, an inspection will occur once every two years unless the source only has a small fuel burning unit (once every three years). Follow up inspection resource estimates related to potential enforcement are included in Section 2.3.6 and 2.3.9.

Table 2.3.2.B estimates number of scheduled Level 2 inspections per source for an annual schedule and estimates time required to investigate complaints associated with Non-Title V sources.

Table 2.3.2.C estimates hours associated with the entire Level 2 inspection program.

**Table 2.3.2.A Compliance Inspections/Small Non-Title V Sources  
Hours Per Source - FY 1999, 2000, 2001**

Tasks	Hours
File Review & Preparation	0.5
Travel Time	0.8
On Site Time	1
Report Preparation & Review	1
Administrative (filing, data entry)	0.5
Totals	3.8

**Table 2.3.2.B Compliance Inspections/Small Non-Title V Sources  
Number of Level 2 Inspections by Category**

Number of Inspections	1148
Total Hours	4362
Number of FTE'S	2.73

Workload Analysis -

**Table 2.3.2.C Compliance Inspections/Small Non-Title V Sources Workload Calculations**

Compliance	FY 1999 hrs/yr	FY 2000 hrs/yr	FY 2001 hrs/yr
Non-Title V	4362	4362	4362
Total Hours	4362	4362	4362
% Workload	100%	100%	100%
Total Hours	4362	4362	4362

Workload Discussion - The current workload consists of a total of 4,362 hours per year.

## Financial Analysis -

**Table 2.3.2.D Compliance Inspections/Small Non-Title V Sources Financial Requirements**

	FTEs	Total
Technical	2.73	\$101,235
Manager	0.39	\$23,086
Support	0.44	\$12,023
Total FTEs	<b>3.55</b>	
Proposed Budget		
Salaries		<b>\$136,343</b>
ERE		\$31,219
Subtotal		\$167,562
P & O		\$0
Travel In		\$10,306
Travel Out		\$1,776
Other Operations		\$1,776
Equipment		\$28,569
Subtotal		\$42,428
Administrative		\$31,157
TOTAL		<b>\$241,147</b>

Financial Discussion - Non-Title V costs associated with this task are cost recoverable and funded by the Permit Fee Fund. The non-recoverable portion of this program is funded by the continuing Federal grant from EPA, assuming an amount of about \$930,000. If the actual award is less than the projection, expenditures for this and all federally-funded tasks will be adjusted.

### 2.3.3 Non-Permitted and Small Non-Title V Related Inspections

Plain Language Description - This task includes field-oriented activities necessary to ensure non-permitted point and area sources are in compliance with applicable rules and statutes; these activities are primarily prompted by complaints and special requests.

General Description - The AQD often receives complaints about emissions from non-permitted point or area sources such as open burning and paint overspray. Additionally, special requests from other divisions within Maricopa County, ADEQ, tribal government, or federal government may lead to an inspection or a joint inspection of a non-permitted point or area source. This section of the report does not include fugitive dust complaints.

Assumptions - Preparation, conduct and inspection documentation for non-permitted sources take about 4.5 hours. AQD currently does not receive many special requests from other divisions or governmental agencies (approximately 3 per year). All complaints that are received in AQD are logged in an electronic database. An in-office investigation is then initiated to explore the complaint. If the complaint is validated an inspection is scheduled. Approximately 39% of all complaints received that are not about fugitive dust are related to non-permitted or area sources. Based upon historical data the following times are complaint processing times for non permitted sources.

**Table 2.3.3.A Non-Permitted and Small Non-Title V Related Inspections  
Hours Per Source**

Tasks	Hours
On-site Inspection + Travel	2
Follow up inspection	0.75
Follow up Call	0.25
Report & Preparation	1.5
Totals	4.5

AQD records show that 800 total complaints/year are received, 222 of these are for small Non-Title V sources or unpermitted sources. Analysis indicates that 39% of these annual complaints, 86/yr are non-permit related and will possibly require an inspection. The remaining 61%, 136/yr, are complaints that could not be associated with a specific permit or concerned sources too small to permit. Division policy is that 100% of all non permit related complaints require inspection. This gives us the following data on non-permitted or de minimus sources:

**Table 2.3.3.B Non-Permitted and Small Non-Title V Related Inspections  
Number of Inspections**

	Non-permitted	Permit Related	Total
Number of Inspections	86	136	222
Total Hours	387	612	999
Number of FTE'S	0.24	0.38	0.62

Workload Analysis -

**Table 2.3.3.C Non-Permitted and Small Non-Title V Related Inspections  
Workload Calculations**

Compliance	FY 1999 hrs/yr	FY 2000 hrs/yr	FY 2001 hrs/yr
Non-Recoverable	999	999	999
Total Hours	999	999	999
% Workload	100%	100%	100%

Workload Discussion - The workload for special requests are expected to increase at a modest rate per year due to an increased economic development in those areas regulated by MCESD AQD.

## Financial Analysis -

**Table 2.3.3.D Non-Permitted Related Inspections Financial Requirements**

	FTEs	Total
Technical	0.62	\$23,183
Manager	0.09	\$5,287
Support	0.10	\$2,753
Total FTEs	<b>0.81</b>	
Proposed Budget		
Salaries		<b>\$31,223</b>
ERE		\$7,149
Subtotal		\$38,372
P & O		\$0
Travel In		\$2,360
Travel Out		\$407
Other Operations		\$407
Equipment		\$4,252
Subtotal		\$7,426
Administrative		\$7,135
TOTAL		<b>\$52,933</b>

Financial Discussion - Non-Title V costs associated with this task are cost recoverable and funded by the Permit Fee Fund. The non-recoverable portion of this program is funded by the continuing Federal grant from EPA, assuming an amount of about \$930,000. If the actual award is less than the projection, expenditures for this and all federally-funded tasks will be adjusted.

### **2.3.4 Compliance Program Coordination**

Plain Language Description - This task includes technical staff time required to support the compliance assurance program.

General Description - The Compliance Section is responsible for coordination of the compliance assurance program. The activities associated with this task are as follows:

- Prioritizing and tracking inspection schedules, activities, and results.
- Monitoring a central database of permitted source compliance data.
- Transmitting required compliance information to EPA.
- Program guidance to AQD staff.
- Quarterly compliance status updates to EPA.
- Ensuring that noncompliance is resolved in a timely and appropriate manner.



- Negotiating compliance assurance commitments, including those coordinated with EPA.
- Final review of proposed permits.
- Compliance support of the permit public participation process.

Assumptions - AQD relied on ADEQ's experience in estimating this task at 1564 hours per year.

Workload Analysis -

**Table 2.3.4.A Compliance Program Coordination Workload Calculations**

	FY 1999 hrs/yr	FY 2000 hrs/yr	FY 2001 hrs/yr
Compliance			
Title V	373	373	387
Non-Title V	1719	1719	1788
Non-Recoverable	207	207	215
Total	2299	2299	2390
Title V	373	373	387
% Workload	16	16	16
Non-Title V	1719	1719	1788
% Workload	75	75	75
Non-Recoverable	207	207	215
% Workload	9	9	9
Total Hours	2299	2299	2390

Workload Discussion - This activity is essential for support of the compliance program. This time is associated with staff time for compliance section coordination and meetings as a result of changing priorities. This task accounts for time necessary to track vital aspects of the program's performance, meet federal reporting requirements, and provide routine and special purpose program reports for interested and affected parties, and is an operational tool for the program.

## Financial Analysis -

**Table 2.3.4.B Compliance Program Coordination Financial Requirements**

	FTEs	Total
Technical	1.49	\$55,463
Manager	0.23	\$13,632
Support	0.21	\$5,788
Total FTEs	<b>1.93</b>	
Proposed Budget		
Salaries		<b>\$74,883</b>
ERE		\$17,078
Subtotal		\$91,961
P & O		\$0
Travel In		\$5,646
Travel Out		\$967
Other Operations		\$967
Equipment		\$6,081
Subtotal		\$13,662
Administrative		\$17,042
TOTAL		<b>\$122,665</b>

Financial Discussion - Title V and Non-Title V costs associated with this task are cost recoverable and funded by the Permit Fee Fund. The non-recoverable portion of this program is funded by the continuing Federal grant from EPA, assuming an amount of about \$930,000. If the actual award is less than the projection, expenditures for this and all federally-funded tasks will be adjusted.

### **2.3.5 Compliance Documentation Review** Error! Reference source not found.

Plain Language Description - This task includes the duties necessary to ensure that permitted facilities meet emissions limitations and other permit conditions. These duties consist of the review and analysis of CEM reports, excess emissions reports, periodic compliance and periodic monitoring reports and compliance certifications as required for permitted sources. This task also includes compliance review of draft permits.

General Description - Title V permittees must, at a minimum, certify compliance with their permit conditions annually. The state unitary permitting program also requires each permittee to submit compliance monitoring reports on a periodic basis. As expected in the original WLA, the majority of sources required assistance in understanding the reporting requirements and how to legally satisfy those requirements. The largest major sources and sources in air quality nonattainment areas generally have increased record keeping and reporting requirements. Sources that submit reports as a result of a compliance schedule pursuant to an enforcement action also require review.

The Compliance Section reviews all proposed permits for clarity, enforceability on the premise that understandable permits are necessary for compliance. A significant amount of time is associated with draft permit review.

Assumptions - Currently, the Compliance Section reviews and analyzes CEM reports, excess emissions reports and periodic compliance reports submitted by permitted facilities. Historical practice over the last three calendar years has not borne out this assumption. Approximately 88% of time is associated with this task is associated with Title V sources; the remainder is Non-Title V sources.

Workload Analysis -

**Table 2.3.5.A Compliance Documentation Review Workload Calculations**

	FY 1999 hrs/yr	FY 2000 hrs/yr	FY 2001 hrs/yr
Compliance			
Title V	1380	1380	1380
Non-Title V	1745	1745	1745
Total	3125	3125	3125
Title V	1380	1380	1380
% Workload	44	44	44
Non-Title V	1745	1745	1745
% Workload	56	56	56
Total Hours	3125	3125	3125

Workload Discussion - To calculate the number of hours needed to spend on compliance assurance plan review, the following data were used:

- It takes 3 hours to review a simple report and 9 hours to review a complex report.
- The Compliance Draft permit review time is tabulated in Section 2.2
- An on site CEM audit, data analysis, and report requires at least 845 hours/CEM system

## Financial Analysis -

**Table 2.3.5.B Compliance Assurance Plan Review Financial Requirements**

	FTEs	Total
Technical	1.65	\$61,265
Manager	0.00	\$0
Support	0.00	\$0
Total FTEs	<b>1.65</b>	
Proposed Budget		
Salaries		<b>\$61,265</b>
ERE		\$14,240
Subtotal		\$75,504
P & O		\$0
Travel In		\$6,237
Travel Out		\$825
Other Operations		\$825
Equipment		\$9,666
Subtotal		\$17,553
Administrative		\$14,218
TOTAL		<b>\$107,275</b>

Financial Discussion - Title V and Non-Title V costs associated with this task are cost recoverable and funded by the Permit Fee Fund.

### **2.3.6 Administrative Compliance Activities**

Plain Language Description - This task refers to taking of non-judicial and administrative enforcement actions after a source has been found to be out of compliance with applicable requirements.

General Description - The Compliance Section has many functions and activities which fall under the category of non judicial enforcement. These include: writing letters of warning or correction (NOC); writing notices of violation (NOV); writing requests for information (RFI); drafting Orders of Abatement; review and analysis of NOV responses; meeting with sources; preparing internal case documentation; assisting with permit denials; drafting and review of consent orders and compliance plans/schedules; involvement in non-judicial settlement negotiations; and participation in contested case hearings before the Maricopa County Air Pollution Control Hearing Board.

Generally, after a facility is identified as being in noncompliance, AQD issues a NOV. At this time, the facility is given an opportunity to comply voluntarily. Throughout this phase workload is dedicated to phone calls, meetings and correspondence in efforts to agree on a compliance plan to be implemented in a timely manner; this compliance plan is to be submitted in response to a NOV or to be incorporated in a consent document. If voluntary compliance cannot be achieved in a timely manner, enforcement action will be escalated as may be necessary. This time will be accounted for in Section 2.3.9 Enforcement.

#### Assumptions -

- 1996, 1997, and 1998 Section data indicate an average of 1090 NOVs are written each year.
- A NOV requires an average of 10 hours to draft, review and issue.
- The percent of NOVs issued annually were 22% Title V; 51% Non-Title V; 5% Asbestos NESHAP; and 22% area sources.
- Approximately 10% of NOVs issued require at least one meeting with the source; meeting preparation, conduct, follow up and documentation requires at least 40 hours/meeting.
- Each case is unique and is dependent upon the complexity of the permit, the significance of the violations, the progress of the negotiations, and the historical compliance record.

#### Workload Analysis -

**Table 2.3.6.A Administrative Compliance Activities Workload Calculations**

	FY 1999 hrs/yr	FY 2000 hrs/yr	FY 2001 hrs/yr
Compliance			
Title V	377	491	604
Non-Title V	1188	1546	1903
Non-Recoverable	170	221	272
Permits			
Non-Title V	132	172	211
Non-Recoverable	19	25	30
Total	1885	2454	3021
Title V	377	491	604
% Workload	20	20	20
Non-Title V	1320	1718	2115
% Workload	70	70	70
Non-Recoverable	189	245	302
% Workload	10	10	10
Total Hours	1885	2454	3021
Total FTEs	1.18	1.53	1.89

Workload Discussion - MCESD has adopted a progressively applied compliance and enforcement approach; where it is appropriate, resolution of environmental noncompliance is sought in a non-judicial setting. Case development is directed towards gathering sufficient facts and understanding of the facility operations to support development of a consent document with clearly defined compliance requirements. The time estimates for this task do not significantly deviate from the estimates in the 1993 WLA.

## Financial Analysis -

**Table 2.3.6.B Administrative Compliance Activities Financial Requirements**

	FTEs	Total
Technical	1.53	\$56,933
Manager	0.22	\$12,983
Support	0.25	\$6,761
Total FTEs	<b>2.00</b>	
Proposed Budget		
Salaries		<b>\$76,677</b>
ERE		\$17,557
Subtotal		\$94,234
P & O		\$0
Travel In		\$5,796
Travel Out		\$999
Other Operations		\$999
Equipment		\$6,283
Subtotal		\$14,076
Administrative		\$17,522
TOTAL		<b>\$125,832</b>

Financial Discussion - Title V and Non-Title V costs associated with this task are cost recoverable and funded by the Permit Fee Fund. The non-recoverable portion of this program is funded by the continuing Federal grant from EPA, assuming an amount of about \$930,000. If the actual award is less than the projection, expenditures for this and all federally-funded tasks will be adjusted.

### **2.3.7 Incinerator and Power Plant Operator Training Program - Not Applicable to MCESD**

### **2.3.8 Asbestos Demolition and Renovation**

Plain Language Description - This task includes both field and office activities that are necessary to ensure compliance with the notification, emission control and waste disposal provisions of the Asbestos NESHAP Regulation. It also includes responding to complaints and inquiries from the public and the regulated community.

General Description - The National Emission Standard for Hazardous Air Pollutants (NESHAP) for Asbestos regulates those sources undergoing demolition or renovation work and includes notification, emission control and waste disposal requirements. Notification review and inspection of these sources is necessary to determine whether or not the facilities are in compliance with all applicable air quality requirements and to provide adequate regulatory presence to ensure that the facilities are kept in compliance or quickly returned to compliance.

As notifications are received, they are reviewed for completeness and compliance with the notification requirements. Notification information is entered into a database for tracking and reporting. Asbestos inspections include demolition, renovation and landfill inspections. They are unannounced and aim to be conducted while work is in progress. At a minimum, 12 in-

containment or contaminated area inspections with the inspector donning personal protective equipment are conducted to meet current EPA grant requirements.

Efforts to identify non-notifiers include reviewing waste shipment records from landfills and responding to complaints and other public inquiries concerning demolition/renovation activity.

The asbestos program also handles numerous calls from the regulated community and the public. Contractors and consultants inquire about regulatory requirements, interpretation and advice. Consequently, AQD conducts an extensive educational campaign targeted towards asbestos abatement and general contractors using the trade press and industry associations. Significantly included in the educational program are county and municipal building departments, where the bulk of demolition and renovation permits are issued. Homeowners, building owners and realtors often inquire about potential health threats and removal and disposal requirements; these are generally answered within five days or less after receipt.

Assumptions - Approximately 1000 total notifications were received per year. The number of notifications is decreasing. In 2001 approximately 600 notifications were received. The EPA Asbestos Inspection Targeting Strategy requires each contractor to be inspected at least once a year and operators requiring additional oversight several times per year. This involves about 45 inspections per year. Based on historical experience, for a simple inspection, the average time is 6 hours and for a complex inspection, the average time is 13 hours. An inspection includes the following activities: notification review and tracking, travel, complaint investigation, targeted compliance inspections, joint inspections, and report writing. Additional time is spent responding to public and regulated community inquiries.

#### Workload Analysis -

**Table 2.3.8.A Asbestos Demolition and Renovation Workload Calculations**

Tasks	simple	complex	Total	Average
Intake	0.00	0.00	0	0.00
Application Review	0.50	1.00	2	0.75
Pre Inspection	1.00	2.00	3	1.50
Report	1.00	2.00	3	1.50
Follow Up	1.00	2.00	3	1.50
During/Post Inspection / Analysis	1.00	2.00	3	1.50
Tracking	0.75	2.00	3	1.38
Compliance Report	0.33	1.20	2	0.77
Enforcement Action	0.50	1.00	2	0.75
Totals	6	13	19	10

Workload Discussion - This function is necessary for EPA approval and delegation of the Asbestos NESHAP Program. Requirements include allocating time for on-site inspections and public and regulated community inquiries. Responding to inquiries and other types of educational outreach are critical to assure a clear understanding of the regulatory requirements and improve compliance. As mentioned in the 1993 WLA, outreach has been expanded to city and county building departments throughout the state to continue efforts to identify non-notifiers and educated them regarding Asbestos NESHAP regulations. The workload for this program is not expected to increase as a result of Title V program implementation.

## Financial Analysis -

**Table 2.3.8.B Asbestos Demolition and Renovation Financial Requirements**

	FTEs	Total
Technical	2.65	\$98,432
Manager	0.42	\$25,140
Support	0.42	\$11,690
Total FTEs	<b>3.50</b>	
Proposed Budget		
Salaries		<b>\$135,262</b>
ERE		\$30,874
Subtotal		\$166,136
P & O		\$0
Travel In		\$15,498
Travel Out		\$1,750
Other Operations		\$1,750
Equipment		\$27,198
Subtotal		\$46,195
Administrative		\$30,809
Total		<b>\$243,141</b>

Financial Discussion - The non-recoverable portion of this program is funded by the continuing Federal grant from EPA, assuming an amount of about \$930,000. If the actual award is less than the projection, expenditures for this and all federally-funded tasks will be adjusted.

### **2.3.9 Enforcement Activities**

Plain Language Description - This task refers to taking formal escalated enforcement action after a source has been found to be in violation and has not resolved non compliance through administrative compliance activity.

General Description - The Enforcement Section has many functions. These include: preparing case development memoranda; developing civil cases; consultation with the County Attorney's Office; involvement in litigation/settlement proceedings, and administering public record reviews.

Generally, after a facility is identified as being in noncompliance, AQD issues a NOV. At this time, the facility is given an opportunity to comply voluntarily. Throughout this phase, workload is dedicated to phone calls, meetings, and correspondence in efforts to agree on a compliance plan. If voluntary compliance is not achieved in a timely manner, further enforcement actions may be necessary. At this point the Department develops a Case Development Memorandum (CDM) to escalate enforcement action. Escalated enforcement actions may include Orders of Abatement by Consent processed by the Department or referrals to the Office of the County Attorney to pursue a Settlement Agreement or file a Criminal or Civil Complaint. Additional workload is assigned for the Office of the Count Attorney coordination, technical support, development review prior to issuance of the enforcement action: this workload may include deposition preparation and trial testimony.



Assumptions - In the past three years of data, there have been an average of 200 cases referred to the County Attorney. Beginning in January 2002, the Arizona Revised Statutes now allow the Department to process Orders of Abatement by Consent as well as refer cases to the County Attorney. In the first eight months of 2002, the Department processed 26 Orders of Abatement by Consent.

Workload Analysis -

**Table 2.3.9.A Enforcement Workload Calculations**

Tasks	1999 hrs/yr	2000 hrs/yr	2001 hrs/yr	Average
Source Meetings	525	525	525	525
Preparation of Order of Abatement, Settlement Agreement, Citation, Civil Requests	3150	3150	3150	3150
Involvement in Settlements/Negotiations	525	525	525	525
Totals	4200	4200	4200	4200

Workload Discussion - Historically, AQD has sought to bring cases with maximum measurable environmental benefit and seeks to resolve cases outside of a judicial context. It is not possible to discuss in detail the amount of time to support the Office of the County Attorney in case development other than to provide an hourly annual estimate based upon the last three years (2000, 2001, 2002).

Financial Analysis -

**Table 2.3.9.B Enforcement Financial Requirements**

	FTEs	Total
Technical	2.63	\$127,134
Manager	0.42	\$24,893
Support	0.42	\$11,575
Total FTEs	<b>3.47</b>	
Proposed Budget		
Salaries		<b>\$163,603</b>
ERE		\$34,321
Subtotal		\$197,924
P & O		\$0
Travel In		\$13,098
Travel Out		\$1,733
Other Operations		\$1,733
Equipment		\$10,897
Subtotal		\$27,460
Administrative		\$34,156
Total		<b>\$259,540</b>

Financial Discussion - These task activities are not cost recoverable and must be funded from the General Fund and the Federal 105 grant monies.

### 2.3.10 Stage I Program

Plain Language Description - This program is for the administration of Non-Title V permits that are required for business where gasoline dispensing is the only source of air pollution.

General Description - This program is considered separately from the Non-Title V inspections program due to the difference in inspection time and frequency. The costs showed for this program are for all tasks included in performing a Non-Title V inspection.

Assumptions - It is assumed that Stage I inspections average 1.8 hours, which includes file review, inspection, drive time, and report writing.

Workload Analysis -

**Table 2.3.10.A Stage I Program Workload Calculations**

Number of Inspections	940
Total Hours	1692
Number of FTE'S	1.06

Workload Discussion - There are approximately 940 gasoline dispensing businesses in the county. A rule effectiveness study completed in May 1997 indicated the need for annual inspections.

Financial Analysis -

**Table 2.3.10.B Stage I Program Financial Requirements**

	FTEs	Total
Technical	1.06	\$39,265
Manager	0.17	\$10,028
Support	0.17	\$4,663
Total FTEs	<b>1.40</b>	
Proposed Budget		
Salaries		<b>\$53,957</b>
ERE		\$12,316
Subtotal		\$66,272
P & O		\$0
Travel In		\$3,997
Travel Out		\$698
Other Operations		\$698
Equipment		\$16,259
Subtotal		<b>\$21,653</b>
Administrative		\$12,290
Total		<b>\$100,215</b>

Financial Discussion - Non-Title V costs associated with this task are cost recoverable and funded by the Permit Fee Fund.

### 2.3.11 Tank Truck Certification

Plain Language Description - This program is for the certification of gasoline tank trucks that operate in the county.

General Description - The County requires an annual pressure test of all tank trucks that deliver gasoline. The tests are witnessed by county personnel and then decals are administered to indicate a truck meets the testing requirements for delivering gasoline.

Assumptions -

Workload Analysis -

**Table 2.3.11.A Tank Truck Certification Workload Calculations**

	simple	complex	Total
Tank Truck Certifications	450	100	550
Total Hours	787.5	200	987.5
Number of FTE'S	0.56	0.14	0.71

Workload Discussion -

Financial Analysis -

**Table 2.3.11.B Tank Truck Certification Financial Requirements**

	FTEs	Total
Technical	0.71	\$26,190
Manager	0.11	\$6,689
Support	0.11	\$3,110
Total FTEs	<b>0.93</b>	
Proposed Budget		
Salaries		<b>\$35,989</b>
ERE		\$8,215
P & O		\$0
Travel In		\$3,519
Travel Out		\$466
Other Operations		\$466
Equipment		\$5,454
Subtotal		\$9,905
Administrative		\$8,198
Total		<b>\$62,306</b>

Financial Discussion - Non-Title V costs associated with this task are cost recoverable and funded by the Permit Fee Fund. The non-recoverable portion of this program is funded by the

continuing Federal grant from EPA, assuming an amount of about \$930,000. If the actual award is less than the projection, expenditures for this and all federally-funded tasks will be adjusted.

### 2.3.12 Earth Moving

Plain Language Description - This program consists of issuing permits and conducting inspections of all earth moving activities.

General Description - All earth moving activities that disturb more than 0.1 acres are required to obtain permits and submit dust control plans.

Assumptions -

Workload Analysis –

**Table 2.3.12.A Earthmoving Hours Per Source**

Tasks	simple <sup>1</sup>	complex <sup>2</sup>	Total	Average
Application Review	0.50	1.00	1.50	0.75
Revision	0.66	1.50	2.16	1.08
Inspection	0.50	10.00	10.50	5.25
Report	0.50	2.50	3.00	1.50
Totals	2.16	15.00	17.16	8.58

**Table 2.3.12.B Earthmoving Workload Calculations**

	simple <sup>1</sup>	complex <sup>2</sup>	Total
Earthmoving Permits	2371	905	3276
Total Hours	5121	13575	18696
Number of FTE'S	3.20	8.48	11.69

<sup>1</sup>Simple = 10 acres and less, inspection is 1 to 1

<sup>2</sup>Complex = more than 10 acres, inspection ratio is an average of 5 to 1

Workload Discussion -

Financial Analysis -

**Table 2.3.12.C Earthmoving Financial Requirements**

	FTEs	Total
Technical	11.69	\$433,872
Manager	1.87	\$110,813
Support	1.87	\$51,527
Total FTEs	<b>15.42</b>	
Proposed Budget		
Salaries		<b>\$596,213</b>
ERE		\$136,088
Subtotal		\$732,300
P & O		\$0
Travel In		\$51,237
Travel Out		\$7,712
Other Operations		\$7,712
Equipment		\$80,214
Subtotal		\$146,876
Administrative		\$135,803
Total		<b>\$1,014,980</b>

Financial Discussion - Non-Title V costs associated with this task are cost recoverable and funded by the Permit Fee Fund.

### 2.3.13 Dust Complaints

Plain Language Description - The costs for this program are from inspections of public complaints about earth moving activity. These costs are part of the earth moving program.

General Description -

Assumptions - There were a total of 1956 complaints in 2002 on fugitive dust alone.

Workload Analysis -

**Table 2.3.13.A Dust Complaints Hours Per Source**

Task	simple	complex	Total	Average
Complaint Inspections	0.80	1.00	1.80	0.90
Referral	0.50	0.50	1.00	0.50
Report	0.50	0.50	1.00	0.50
Totals	1.80	2.00	3.80	1.90

**Table 2.3.13.B Dust Complaints Workload Calculations**

	simple	complex	Total
Dust Complaint Inspections	1663	293	1956
Total Hours	2993.4	586	3579.4
Number of FTE'S	2.14	0.42	2.56

Workload Discussion -

Financial Analysis -

**Table 2.3.13.C Dust Complaints Financial Requirements**

	FTEs	Total
Technical	2.56	\$94,931
Manager	0.41	\$24,246
Support	0.410.41	\$11,274
Total FTEs	<b>3.37</b>	
Proposed Budget		
Salaries		<b>\$130,451</b>
ERE		\$29,776
Subtotal		\$160,226
P & O		\$0
Travel In		\$12,757
Travel Out		\$1,687
Other Operations		\$1,687
Equipment		\$17,551
Subtotal		\$33,683
Administrative		\$29,714
Total		<b>\$223,623</b>

Financial Discussion - Non-Title V costs associated with this task are cost recoverable and funded by the Permit Fee Fund.

### **2.3.14 Fireplaces**

Plain Language Description - This program is for the administration of approved fireplace and wood-burning device applications.

General Description - On no-burn days issued by the county, citizens with approved fireplace and wood-burning device applications may use their devices.

Assumptions - Based on experience, it takes 1.1 hours to process each fireplace and wood-burning device applications.

Workload Analysis -

**Table 2.3.14.A Fireplaces Workload Calculations**

	Totals
Number of Applications	224
Total Hours	246
Number of FTE'S*	0.15

Workload Discussion -

Financial Analysis -

**Table 2.3.14.B Fireplaces Financial Requirements**

	FTEs	Total
Technical	0.15	\$5,718
Manager	0.02	\$1,460
Support	0.02	\$679
Total FTEs	<b>0.20</b>	
Proposed Budget		
Salaries		<b>\$7,858</b>
ERE		\$1,794
Subtotal		\$9,651
P & O		\$0
Travel In		\$768
Travel Out		\$102
Other Operations		\$102
Equipment		\$639
Subtotal		\$1,611
Administrative		\$1,790
Total		<b>\$13,052</b>

Financial Discussion - The non-recoverable portion of this program is funded by the continuing Federal grant from EPA, assuming an amount of about \$930,000. If the actual award is less than the projection, expenditures for this and all federally-funded tasks will be adjusted.



## **2.4 Technical Support Activities**

Activities described under this section provide both basic data necessary to the operation of a county air pollution control program and efforts to control air pollution from non-permitted sources. MCESD monitors air quality throughout the County, analyzes trends and predicts future air quality conditions in long and short terms.

AQD must maintain data on the relative contribution of sources to total emissions in nationally acceptable formats.

### **2.4.1 Emissions Inventory**

Plain Language Description - This task involves all the activities needed to monitor and record actual emissions data from AQD-permitted facilities.

General Description - The Emissions Inventory (EI) is an activity that includes the estimation and tracking of emissions from permitted facilities under AQD jurisdiction. The information collected and maintained by this activity is used for a variety of purposes including:

- Indicating compliance with permitted limits;
- Recording and tracking emission estimation techniques for permit development;
- Recording current emission records for trends analysis, air shed modeling; non-attainment area control strategy development and assessment, and rule effectiveness analysis;
- Establishing the emission budget for assessing necessary program fees;
- Meeting federal data reporting requirements of the CAAA.

The EI is updated annually for those point sources where annual emissions quantities can be estimated with certainty. This includes all Title V and Non-Title V sources. EIs conducted by the County for the past five years have emphasized criteria pollutants with less emphasis on assessing hazardous air pollutants (HAPs). Given pending MACTs, a survey of HAP data has been implemented and will be a component of all future EIs conducted by the County.

Assumptions - Currently AQD EI activities include the questionnaire design, survey mail out, help desk functions, data collection and quality assurance, and survey update to EPA. Primary EI focus has been on establishing a comprehensive countywide emission inventory. Current and future EI questionnaires will survey for criteria pollutants and federal HAPs as required.

Workload Discussion - An annual EI is a required part of a Title V program and the Non-Title V SIP programs. Emission Statements are also required by the CAA for Volatile Organic Compounds (VOC) and Nitrogen Oxides (NOX) sources of 25 tons per year or greater in ozone nonattainment areas. AQD estimates the time to review, identify and resolve problems with complex Title V source EI submittals to be approximately 25-hours per source. This estimate per complex source includes industry assistance, gross error checking, research, and updating of the EI database. A 10-hour review period per complex Table A Non-Title V source is the anticipated time required to process these data. Table B Non-Title V sources average 7-hours to process. The remaining basic sources would require 0.6-hour per questionnaire.

Workload Analysis -

**Table 2.4.1.A Emissions Inventory Workload Calculations**

	FY 1999 hrs/yr	FY 2000 hrs/yr	FY 2001 hrs/yr
Permits			
Title V	1150	1150	1150
Non-Title V	5002	5002	5002
<b>TOTAL HOURS</b>	<b>6152</b>	<b>6152</b>	<b>6152</b>
Title V Hours	1150	1150	1150
% Workload	19	19	19
Non-Title V Hours	5002	5002	5002
% Workload	81	81	81

Workload Discussion - Routine EI is a required part of county Title V programs and nonattainment areas.

There are 750 existing and operational complex sources and 50 of these are Title V major sources; to review, verify and update these data, it is estimated to require 23 hours per source. The complexity of the EI review has increased significantly due to the additional survey requirements for HAPs data. The following data summarizes this information for tasks performed by the EI Section:

Annual EI ) 50 Title V complex sources/year x 23 hours/source	= 1150
Annual EI ) 184 Non-Title V complex sources/year x 10 hours/source	= 1840
Annual EI ) 329 Standard Non-Title V sources/year x 7 hours/source	= 2303
Annual EI ) 1431 Basic Non-Title V sources/year x 0.6 hours/source	= 858.6

Total Hours/year = 6152

Title V EI Program Hours/year = 1150

Non-Title V EI Program Hours/year = 1840+2303+858.6 = 5002

## Financial Analysis -

**Table 2.4.1.B Emission Inventory Financial Requirements**

	FTEs	Total
Technical	3.84	\$186,209
Manager	0.62	\$36,460
Support	0.62	\$16,954
Total FTEs	<b>5.08</b>	
Proposed Budget		
Salaries		<b>\$239,623</b>
ERE		\$50,269
Subtotal		\$289,892
P & O		\$0
Travel In		\$0
Travel Out		\$2,538
Other Operations		\$2,538
Equipment		\$15,961
Subtotal		\$21,036
Administrative		\$50,028
Total		<b>\$360,955</b>

Financial Discussion - Title V and Non-Title V costs associated with this task are cost recoverable.

### **2.4.2 Source Testing and Certifying Continuous Emissions Monitors**

Plain Language Description - This task involves activities associated with observing and reviewing Continuous Emissions Monitoring (CEM) Relative Accuracy Test Audit (RATA) certifications and facility emissions performance testing.

General Description - The purpose of observing CEM test activities is to ensure the emissions monitoring equipment adheres to appropriate EPA specifications for instrumentation performance. The purpose of observing emissions performance testing is to evaluate operational processes and emissions data to verify compliance with permit limits.

Assumptions - The times required to prepare for and review a performance test and a compliance test are roughly equivalent. The time required to process a performance or CEM certification test is 47 hours per test on an average for a major source. Currently, the combined annual average hours to prepare for, observe, document, and report are 6270 hours for the source testing observation team in the Compliance Section.

The average time to process each test has increased with the advent of the Title V permit program; however, the number of CEM/performance tests is not expected to increase considerably. Each federal major source has at least two significant emission points requiring scheduled annual testing. The estimates provided below do not include testing required as a result of enforcement action.

Workload Analysis -

**Table 2.4.2.A Source Testing and Certifying Continuous Emissions Monitors  
Workload Calculations**

Tasks	FY 1999 hrs/yr	FY 2000 hrs/yr	FY 2001 hrs/yr	Total	Average
Compliance					
Title V	36	36	36		36
Non-Title V	64	64	64		64
TOTAL hrs	5622	6339	6098	18059	6020
TOTAL FTEs	3.51	3.96	3.81	11.29	3.76

Workload Discussion - An evaluation of past AQD CEM/performance certification efforts for the years of 1994 through 1998 has yielded an average of 40 major source tests conducted annually, an analysis has shown that approximately 10 hours is required to review a typical testing protocol; 1 hour of travel is required to reach the testing location and return; 12 hours is required to observe the actual testing, document relevant process data and 10 hours to prepare the field activity report for a major source. Upon receipt of the completed test report, twelve hours is the average time required to review the submitted data. This time will be less for a non-major source.

An evaluation of the 1993 WLA and the three past calendar years has indicated the resource requirements proposed for testing were initially underestimated by MCESD. MCESD has tracked the workload of its source testing unit and noted the following differences from ADEQ:

- Due to the multiple pollutant nonattainment status of Maricopa County, sources required to perform testing conduct additional tests for pollutants not required elsewhere (NOX and Carbon Monoxide (CO) for example).
- The VOC sources in Maricopa County employ many different types of control systems, as a result, a number of tests are for unique systems and MCESD processes fewer repetitive tests.
- The VOC control systems must also perform capture efficiency, a complex test unique to each source depending on the control system, capture system, and process layout.

MCESD acknowledges that where possible all of the tests required to be performed were witnessed because this is a significant means to determine compliance.

## Financial Analysis -

**Table 2.4.2.B Source Testing and Certifying Continuous Emissions Monitors  
Financial Requirements**

	FTEs	Total
Technical	3.76	\$182,211
Manager	0.60	\$35,678
Support	0.60	\$16,590
Total FTEs	<b>4.97</b>	
Proposed Budget		
Salaries		<b>\$234,478</b>
ERE		\$49,190
Subtotal		\$283,668
P & O		\$0
Travel In		\$14,221
Travel Out		\$2,483
Other Operations		\$2,483
Equipment		\$25,826
Subtotal		\$45,013
Administrative		\$48,954
Total		<b>\$377,635</b>

Financial Discussion - Title V costs and State Non Title-V costs associated with this task are cost-recoverable.

### **2.4.3 Ambient Air Monitoring**

Plain Language Description - This task involves the work required to design and implement an effective monitoring network to measure criteria pollutant concentrations associated meteorological parameters, and to assess current and future visibility conditions. MCESD also conducts quality assurance/quality control on the MCESD network. The purpose of the criteria pollutant network is to determine compliance with National Ambient Air Quality Standards (NAAQS) and to track trends in various air sheds with respect to the NAAQS.

General Description -The Department operates a network of pollutant and meteorological monitoring sites designed to measure concentrations of particulates (PM10 and PM2.5), carbon monoxide, sulfur dioxide, nitrogen dioxide, ozone, lead and meteorological parameters throughout Maricopa County. The CAA requires state and local agencies to operate a minimum network of National Air Monitoring Sites (NAMS) and State and Local Air Monitoring Sites (SLAMS) designed to collect data for use in control strategy development and assessment. Data from these sites are required to be submitted to ADEQ and EPA routinely, and EPA gives final approval of NAMS/SLAMS network design. In addition, ADEQ operates a network of monitors designed to collect other information as needed for state requirements. A total of 25 criteria pollutant/meteorological sites are currently in operation. The activities contained herein include those necessary for site support, equipment calibration and repair, quality assurance and quality control, and data handling; in addition, there are laboratory activities integral to network operation including analysis of PM10 samples.

Assumptions - In order to determine the appropriate contributions of Title V industrial sources to the operation of the air quality monitoring network, the Title V/Non-Title V contributions to the criteria pollutant inventories were applied to the monitoring network workload and financial analysis.

Workload Analysis -

**Table 2.4.3.A Ambient Air Quality Monitoring Workload Calculations**

Tasks	FY 1999 hrs/yr	FY 2000 hrs/yr	FY 2001 hrs/yr
Monitoring			
Title V	562	562	562
Non-Title V	5053	5053	5053
Non-Recoverable	14438	14438	14438
<b>Total</b>	<b>20053</b>	<b>20053</b>	<b>20053</b>
Title V	562	562	562
% Workload	3	3	3
Non-Title V	5053	5053	5053
% Workload	25	25	25
Non-Recoverable	14438	14438	14438
% Workload	72	72	72

\* Does not include PAMS/HAPs-related monitoring which is discussed in 2.4.7

Workload Discussion - It can be seen that most of the current criteria pollutant monitoring activities are not related to Title V sources. In future years this distribution of monitoring activities is not expected to change significantly, even though a substantial increase in Title V related visibility monitoring is proposed. This is because non-Title V monitoring is also expected to increase for PM10 and visibility. Thus, non-Title V criteria pollutant monitoring will continue to make up the large part of the ambient monitoring workload.

Proposed expenditures for contracts, equipment, travel and other operating are contained in separate work sheets. They include costs for replacing equipment and increased costs for contracts, equipment, travel and other operating costs due to inflation and expansion in some activities.

## Financial Analysis -

**Table 2.4.3.B Ambient Air Quality Monitoring Financial Requirements**

	FTEs	Total
Technical	12.53	\$397,814
Manager	2.01	\$118,854
Support	2.01	\$55,266
Total FTEs	<b>16.54</b>	
Proposed Budget		
Salaries		<b>\$571,934</b>
ERE		\$137,425
Subtotal		\$709,359
P & O		\$0
Travel In		\$54,955
Travel Out		\$8,272
Other Operations		\$8,272
Equipment		\$291,663
Subtotal		\$363,162
Administrative		\$137,350
Total		<b>\$1,209,871</b>

Financial Discussion - Title V and Non-Title V costs associated with this task are cost recoverable and funded by the Permit Fee Fund. The non-recoverable portion of this program is funded by the continuing Federal grant from EPA, assuming an amount of about \$930,000. If the actual award is less than the projection, expenditures for this and all federally-funded tasks will be adjusted.

### **2.4.4 SIP Modeling - Not Applicable to Maricopa County**

### **2.4.5. Other Technical Support**

Plain Language Description - The objective of this task is to document technical staff time associated with the supervision coordination and direction of the Planning Section.

General Description - Section management involves time spent by the Section Managers and Supervisors to provide workload management, hiring, performance evaluations, work assignments, and budget preparation. Section management plays a key role in developing and setting Section and unit policy and priorities. In addition, management also provides senior technical assistance to staff and project coordination and review. Yearly section activities are summarized in the annual AQD report.

Assumptions - It is projected that the management workload will continue as currently performed.

Workload Analysis -

**Table 2.4.5.A Other Technical Support Workload Calculations**

Tasks	Hours
Monitoring	
Title V	15
Non-Title V	59
Non-Recoverable	26
Total	100
Title V	15
% Workload	15
Non-Title V	59
% Workload	59
Non-recoverable	26
% Workload	26

Financial Analysis -

**Table 2.4.5.B Other Technical Support Financial Requirements**

	FTEs	Total
Technical	0.07	\$3,459
Manager	0.01	\$470
Support	0.01	\$315
Total FTEs	<b>0.09</b>	
Proposed Budget		
Salaries		<b>\$4,245</b>
ERE		\$894
Subtotal		\$5,139
P & O		\$0
Travel In		\$0
Travel Out		\$45
Other Operations		\$45
Equipment		\$286
Subtotal		\$376
Administrative		\$890
Total		<b>\$6,405</b>

Financial Discussion - Title V and Non-Title V costs associated with this task are cost recoverable and funded by the Permit Fee Fund. The non-recoverable portion of this program is funded by the continuing Federal grant from EPA, assuming an amount of about \$930,000. If the actual award is less than the projection, expenditures for this and all federally-funded tasks will be adjusted.



#### 2.4.6 Pollutant Episode Forecasting Error! Reference source not found.

Plain Language Description - This task involves monitoring and forecasting in areas with high pollution potential in order to advise the public.

General Description - The Phoenix metropolitan area experiences strong temperature inversions during the winter months which can cause high levels of PM10 or CO and poor visibility. MCESD in coordination with ADEQ continuously measures these parameters and in the winter make daily forecasts when levels are expected to approach the NAAQs in order to advise the public about burn and no-burn days.

Advisories to the public are coordinated with local agencies.

Assumptions -

Workload Analysis -

**Table 2.4.6.A Pollutant Episode Forecasting Workload Calculations**

Tasks	Hours
Monitoring/Planning	
Non-recoverable	40
Total	40
Non-recoverable	40
% Workload	100

Financial Analysis -

**Table 2.4.6.B Pollutant Episode Forecasting**

	FTEs	Total
Technical	0.03	\$1,384
Manager	0.00	\$188
Support	0.00	\$126
Total FTEs	<b>0.04</b>	
Proposed Budget		
Salaries		<b>\$1,698</b>
ERE		\$358
Subtotal		\$2,056
P & O		\$0
Travel In		\$0
Travel Out		\$18
Other Operations		\$18
Equipment		\$114
Subtotal		\$151
Administrative		\$356
Total		<b>\$2,562</b>

Financial Discussion - The non-recoverable portion of this program is funded by the continuing Federal grant from EPA, assuming an amount of about \$930,000. If the actual award is less than the projection, expenditures for this and all federally-funded tasks will be adjusted.

#### **2.4.7 PAMS/HAPS Research - Not Applicable to MCESD**

#### **2.4.8 Non-Permitted Source Investigations and Studies**

Plain Language Description - Temporary releases of air pollutants from sources not subject to air permitting can be a nuisance, and in some cases threaten the environment and public health. MCESD plays a role in responding to such releases.

General Description - Activities in this area occur in conjunction with citizen complaints regarding non-permitted sources and situations. For air quality, both investigation and monitoring may be employed if deemed necessary based on an assessment of the type and amount of pollution released to the atmosphere.

Assumptions - Substantive response to complaints in terms of on-site air quality work other than investigation is problematic, depending on staff availability and appropriate sampling equipment for the pollutant(s) in question.

#### Workload Analysis -

**Table 2.4.8.A Non-Permitted Source Investigations and Studies Workload Calculations**

Tasks	Hours
Planning	
Non-recoverable	500
Total	500
Non-recoverable	500
% Workload	100

Workload Discussion -The Compliance and Monitoring Sections may respond to these complaints.

Financial Requirements -

**Table 2.4.8.B Non-Permitted Source Investigations and Studies Financial Requirements**

	FTEs	Total
Technical	0.36	\$17,297
Manager	0.04	\$2,352
Support	0.06	\$1,575
Total FTEs	<b>0.45</b>	
Proposed Budget		
Salaries		<b>\$21,224</b>
ERE		\$4,470
Subtotal		\$25,694
P & O		\$0
Travel In		\$1,350
Travel Out		\$227
Other Operations		\$227
Equipment		\$1,428
Subtotal		\$3,232
Administrative		\$4,449
Total		<b>\$33,375</b>

Financial Discussion - The non-recoverable portion of this program is funded by the continuing Federal grant from EPA, assuming an amount of about \$930,000. If the actual award is less than the projection, expenditures for this and all federally-funded tasks will be adjusted.

**2.4.9 Forestry Smoke Management - Not Applicable to MCESD**

## 2.5 Technical Assistance and Education

AQD is responsible for keeping its customers informed of its activities to control air pollution and to respond to special constituent needs. These objectives are accomplished through outreach activities and responses to inquiries. Both the CAAA and State statute require MCESD to operate a Small Business Assistance Program to assist qualifying air pollution sources in meeting federal and state mandates.

### 2.5.1 Information and Education

Plain Language Description - This task involves informing the varied customers of the County air quality program through both outreach efforts and responses to inquiries.

General Description - The AQD proactively, or in response to requests conducts a variety of activities to provide information to the public on a wide range of air-quality related matters. Other supporting activities include preparation of brochures and newsletters, contacts with the media, responses to public requests for information and preparation of articles for outside newsletters. Each Quarter, AQD prepares and distributes the Visibility Newsletter and the Rules and Public Workshops schedule.

Assumptions - Numerous polls show that Maricopa County residents have significant concerns regarding air quality. Assuming this trend does not change, AQD will continue to need to conduct numerous informative presentations to our constituents and maintain dialogues with interested groups.

Workload Analysis -

**Table 2.5.1.A Information and Education Workload Calculations**

Tasks	Hours
Planning	
Non-recoverable	160
Total	160
Non-recoverable	160
% Workload	100

Workload Discussions - The Planning Section's responsibility for program development and SIP-related efforts is expected to increase public information activities by 25% in fiscal years 1999, 2000, and 2001. This increase was more than realized. At the time of the last WLA, the Compliance Unit was unable to respond to all public inquiries related to facility compliance status and operating conditions. This shortfall has now been rectified.

## Financial Analysis -

**Table 2.5.1.B Information and Education Financial Requirements**

	FTEs	Total
Technical	0.11	\$5,535
Manager	0.01	\$753
Support	0.02	\$504
Total FTEs	<b>0.15</b>	
Proposed Budget		
Salaries		<b>\$6,792</b>
ERE		\$1,430
Subtotal		\$8,222
P & O		\$0
Travel In		\$0
Travel Out		\$73
Other Operations		\$73
Equipment		\$457
Subtotal		\$602
Administrative		\$1,424
Total		<b>\$10,248</b>

Financial Discussion - The non-recoverable portion of this program is funded by the continuing Federal grant from EPA, assuming an amount of about \$930,000. If the actual award is less than the projection, expenditures for this and all federally-funded tasks will be adjusted.

### **2.5.2 Compliance Assistance Program**

Plain Language Description - This program is designed to help small businesses comply with environmental laws, including the Clean Air Act (CAA) requirements. This is accomplished by providing free, clear regulatory information and useful technical assistance to small businesses in a non-threatening manner.

General Description - Although many small businesses are required to comply with environmental laws such as the CAAA, they often lack the technical and/or financial resources to understand and comply with them.

Small businesses can get help completing permit applications or reporting forms, assessing operating practices, identifying environmentally friendly chemical substitutes, conducting on-site compliance assistance visits and identifying pollution prevention opportunities. The Small Business Environmental Assistance Program also provides information on the latest compliance methods and technologies for small business.

Activities associated with the program include: responding to telephone inquiries from small business owners, developing information materials for specific regulations or industries; conducting information outreach for specific industries (e.g., dry cleaners, electroplaters, auto body shops) or processes (painting, solvent cleaning) including workshops and seminars; coordinating information efforts with trade associations and other industry groups; creating a pollution prevention information clearinghouse for small business; and providing voluntary on-site compliance assistance visits.

Workload Assumptions - The separate portions of the workload analysis were calculated by using the following rationale:

- On-Site Assistance Visits - Trends over the past six months were examined and the number of site visits were assumed to grow at a rate of 25% over the next three years. This growth will be expected due to the increased emphasis on these visits and the high value of the free service expressed by the small businesses that have previously gone through the program. The visits are assumed to take 24 person hours to conduct and include administrative time to set up the visit, pre-visit preparation, travel time to/from the site, actual time conducting the visit, report generation, and follow-up.
- Seminars and Other Outreach Activities - Trends over the past year were used to estimate the number of outreach activities conducted by the SBEAP. It was assumed that the number of outreach activities would increase each year by 20% due to the Department's commitment to increase customer service and stakeholder education. The average amount of time to develop and implement an activity was estimated to be 20 hours. Outreach activities would include items such as developing fact sheets, brochures or guidance documents, publishing articles or newsletters, conducting seminars or conferences, or working a booth at a trade show.
- Permit/Emission Inventory Assistance - The number of sources requesting assistance in completing permit applications or emission inventory forms was assumed to be 10% of the total number of sources submitting the forms yearly and fluctuates yearly in the range of 250 - 450. The average amount of time to assist with completion of a permit application is 12 hours and was based on past experience with a variety of sources. The average amount of time to assist with completion of an emission inventory form is 5 hours and was also based on past experience with a variety of sources.
- Technical Assistance - The technical assistance category consists of daily phone calls and requests to obtain information on regulatory compliance, technical questions, or generic information. The number of calls for the analysis was based on the previous year's data that increases by 10% yearly due to a more established and mature SBEAP. An average of 1 hour per call was used for calculations.

Workload Analysis -

**Table 2.5.2.A Compliance Assistance Program Workload Calculations**

	FY 1999 hrs/yr	FY 2000 hrs/yr	FY 2001 hrs/yr	Average
SBEAP				
Title V	150	179	217	182
Non-Title V	750	896	1087	911
Non-Recoverable	600	717	870	729
TOTAL	1500	1792	2174	1822
Title V	150	179	217	182
% Workload	10	10	10	10
Non-Title V	750	896	1087	911
% Workload	50	50	50	50
Non-Recoverable	600	717	870	729
% Workload	40	40	40	40

Workload Discussion -

Financial Analysis -

**Table 2.5.2.B Compliance Assistance Program Financial Requirements**

	FTEs	Total
Technical	1.14	\$55,152
Manager	0.18	\$10,799
Support	0.18	\$5,021
Total FTEs	<b>1.50</b>	
Proposed Budget		
Salaries		<b>\$70,972</b>
ERE		\$14,889
Subtotal		\$85,861
P & O		\$0
Travel In		\$4,304
Travel Out		\$752
Other Operations		\$752
Equipment		\$4,727
Subtotal		\$10,535
Administrative		\$14,817
Total		<b>\$111,213</b>

Financial Discussion - Title V and Non-Title V costs associated with this task are cost recoverable and funded by the Permit Fee Fund. The non-recoverable portion of this program is funded by the continuing Federal grant from EPA, assuming an amount of about \$930,000.

## ***2.6 Administration, Support Services, and Indirect Program Elements***

### **2.6.1 Administrative and Support Services**

Plain Language Description - This section includes all of the activities conducted in the Administrative Unit of the Air Quality Division, which provides program-wide management and support services.

General Description - At the time that this analysis was conducted in 1993, the Administrative Unit included eight FTE: the Air Quality Division Manager (DM), the Assistant Air Quality Division Manager (ADM), the Office Supervisor, an Administrative Assistant, Data Control Specialist, two Records Processors, and a Data Control Clerk. Since that time, the Environmental Services Department and the Air Quality Division have been reorganized. Several of the above support positions are now located in specific Division sections instead of in the Administrative Unit. In addition, Maricopa County streamlined and automated its internal functions for purchasing and payroll which resulted in a transfer of tasks to the individual County Division level. The Administrative Unit will contain six FTE: the DM, the ADM, the Office Supervisor, the Purchasing Specialist, and two Administrative Assistants.

The DM is responsible for managing the County air pollution control program, including the planning, stationary source control program, and work associated with monitoring ambient air quality. The DM sets program policy and contributes to the development of Department policy, in consultation with the Director and the Management Team. The DM sets priorities within individual programs, in consultation with the Assistant Division Manager and Section Managers. The DM is the principal spokesperson for the Air Quality Division before the Legislature, and with other elected officials affected by the air quality program. The DM manages external issues arising within AQD and ensures the quality and utility of written reports. The DM is responsible for problem solving within the programs and for developing solutions to issues arising with constituents, especially members of the regulated community, and involves considerable public contact. The DM, under delegation from the Director, issues permits. The DM communicates with EPA on program policy and direction.

The ADM supervises the Monitoring Section, Emission Inventory Section, Business Manager and Purchasing Specialist, and is responsible for all Division-wide processes and services. The ADM is also the acting DM when the DM is not in the office. The ADM is responsible for priority setting and, through supervision of the Business Manager and Purchasing Manager, oversight of the AQD budget. The ADM is responsible for the development and reporting on performance measures and federal grant tracking. The ADM serves as the principal liaison between the AQD and the Business Services Division for personnel, procurement, accounting, payroll and facility-related functions with the purpose of minimizing the time program staff must devote to these functions.

The Office Supervisor supports the DM, ADM and Business Manager through document and information processing, and assistance in calendaring and communicating with the public. The Office Supervisor schedules meetings, makes travel arrangements, provides overall direction to other support in AQD on consistent procedures, document formats, and schedules work in common areas. The Office Supervisor for AQD provides the ADM with information on budget status and assists Section and Unit Managers in expenditure management and budget control. The Office Supervisor assists in the development of annual grant requests and work programs. The Office Supervisor manages the DM Office budget and supports the DM in areas of personnel, accounting, payroll and facility-related activities.

The Purchasing Specialist completes all procurement activities for the Monitoring Section. The Purchasing Specialist supports the ADM and Office Supervisor in procurement related activities. The Purchasing Specialist is responsible for requisitions and purchase orders. The Purchasing Specialist performs data entry into the various administrative tracking systems used in AQD and Maricopa County and assists the ADM and Office Supervisor with other tasks.

The two Administrative Assistants act as a receptionist, handle and sort all AQD mail, enter and track payroll, process human resource related documents, schedule meetings and appointments as necessary, provide back-up as necessary for other division support staff, and assist with other tasks as assigned.

#### Assumptions -



Workload Analysis -

**Table 2.6.1.A Administration and Support Services Workload Calculations**

	FY 1999 hrs/yr	FY 2000 hrs/yr	FY 2001 hrs/yr	Average
Division Manager's Office				
Title V	1335	1335	1335	1335
Non-Title V	5769	5769	5769	5769
Non-Recoverable	2496	2496	2496	2496
<b>TOTAL</b>	<b>9600</b>	<b>9600</b>	<b>9600</b>	<b>9600</b>
Title V	1335	1335	1335	1335
% Workload	14	14	14	14
Non-Title V	5769	5769	5769	5769
% Workload	60	60	60	60
Non-Recoverable	2496	2496	2496	2496
% Workload	26	26	26	26

Workload Discussion -

Financial Analysis -

**Table 2.6.1.B Administrative and Support Services Financial Requirements**

	FTEs	Total
Technical	2.00	\$96,864
Manager	2.00	\$118,540
Support	2.00	\$55,120
<b>Total FTEs</b>	<b>6.00</b>	
Proposed Budget		
Salaries		<b>\$270,524</b>
ERE		\$57,816
Subtotal		\$328,340
P & O		\$0
Travel In		\$0
Travel Out		\$3,000
Other Operations		\$3,000
Equipment		\$18,869
Subtotal		\$24,869
Administrative		\$57,574
<b>Total</b>		<b>\$410,784</b>

Financial Discussion - Title V and Non-Title V costs associated with this task are cost recoverable and funded by the Permit Fee Fund. The non-recoverable portion of this program is funded by the continuing Federal grant from EPA, assuming an amount of about \$930,000. If the actual award is less than the projection, expenditures for this and all federally-funded tasks will be adjusted.

## 2.6.2 Data Management and Automation Support

Plain Language Description - This identifies the task of the EMS Developer, federal AIRS Coordination and resources assigned to the Computer Section.

General Description - The duties of the AQD Environmental Management System (EMS) is to ensure the data tracking of the permit or license application status, invoice payment status, and to upload compliance, enforcement, and emissions inventory data to the federal EPA AIRS database.

Assumptions – That the user community of AQD will increase staffing is unlikely. The source population in the EMS database is growing at a modest rate. Invoice and fee dispute resolution procedures and processes are established and followed; electronic records are preserved as necessary to document these transactions.

### Workload Analysis -

**Table 2.6.2.A Data Management and Automation Support Workload Calculations**

	FY 1999 hrs/yr	FY 2000 hrs/yr	FY 2001 hrs/yr	Average
Compliance				
Title V	45	47	47	46
Non-Title V	195	202	202	200
Permits				
Title V	45	47	47	46
Non-Title V	194	202	202	199
Planning				
Title V	45	46	46	46
Non-Title V	194	202	202	199
Non-Recoverable	1677	1742	1742	1720
<b>TOTAL</b>	<b>2395</b>	<b>2488</b>	<b>2488</b>	<b>2457</b>
Title V	135	140	140	138
% Workload	6	6	6	6
Non-Title V	583	606	606	598
% Workload	24	24	24	24
Non-Recoverable	1677	1742	1742	1720
% Workload	70	70	70	70

Workload Discussion - The original work load analysis did not assume a dedicated Network Administrator would be assigned and partially funded by AQD. Current workload associated with dedicated, electronic data management staff involves data entry and data quality assurance and quality control. Other hourly estimates are associated with data management tasks associated with environmental program work, such as computer modeling. The hourly estimates also include two positions assigned to the Computer Section, and the AQD file clerk who manages the electronic file tracking system.

## Financial Analysis -

**Table 2.6.2.B Data Management and Automation Support Financial Requirements**

	FTEs	Total
Technical	1.54	\$74,373
Manager	0.25	\$14,563
Support	0.25	\$6,771
Total FTEs	<b>2.03</b>	
Proposed Budget		
Salaries		<b>\$95,707</b>
ERE		\$20,078
Subtotal		\$115,785
P & O		\$0
Travel In		\$0
Travel Out		\$1,014
Other Operations		\$1,014
Equipment		\$6,375
Subtotal		\$8,402
Administrative		\$19,981
Total		<b>\$144,169</b>

Financial Discussion - Title V and Non-Title V costs associated with this task are cost recoverable and funded by the Permit Fee Fund. The non-recoverable portion of this program is funded by the continuing Federal grant from EPA, assuming an amount of about \$930,000. If the actual award is less than the projection, expenditures for this and all federally-funded tasks will be adjusted.

### **2.6.3 Air Program Grant and Project Management**

Plain Language Description - This task includes activities related to agency management of the State relationship with EPA with respect to its annual grant for the air pollution program, making application for annual grants, and compliance with the terms and conditions of the Grant.

General Description - The Air Quality Administration Section is primarily responsible for all activity in this task, which include:

- Liaison with EPA Region IX;
- Federal grant and budget management;
- Development and negotiation of federal program objectives;
- Development of the semiannual performance report;
- Management of private contracts designed to assist in meeting federal plan objectives; and
- Intra-office coordination of federal projects.

Assumptions - An increase in workload has occurred because of the requirements of the CAAA of 1990 and additional emphasis on the part of EPA toward the grants process. As a result, approximately 1.5 FTE have been dedicated to this task. The 1993 workload analysis allocated about 0.5 FTE to this task; the additional resources currently allocated are reclassified to retain adequate performance in this area. This task is included in workload and financial analysis for the Administration and Support Services unit in Section 2.6.1.

#### Workload Analysis -

**Table 2.6.3.A Air Program Grant and Project Management Workload Calculations  
(Included in Table 2.6.1.A)**

Workload Discussion - MCESD is currently meeting all grant-related obligations to EPA. Some effort on the part of section management in Monitoring and Planning sections, and the Asbestos Program staff is necessary to prepare the semiannual progress reports to EPA.

#### Financial Analysis -

**Table 2.6.3.B Air Program Grant and Project Management Financial Requirements  
(Included in Table 2.6.1.B)**

Financial Discussion - The Clean Air Act forbids the use of Federal funds for support of the Title V program, or use of Title V monies collected by states as matching funds for the grant. Thus, no Title V costs are associated with this task. Non-Title V federal program costs associated with this task are not cost-recoverable and are funded from proposed Federal grant revenues.

### **2.6.4 Air Quality Fund Administration - Not Applicable to Maricopa County**

### **2.6.5 Intergovernmental Program Coordination**

Plain Language Description - This activity regards MCESD relationships with local and federal agencies for implementation of CAAA requirements and cross-media program management not related to non-attainment area planning, emergency response, forestry management and general environmental studies.

General Description - In order to support air pollution and other programs, MCESD partners with ADEQ, other county air pollution control districts, Maricopa Association of Governments, Indian tribes, and both federal and state agencies responsible for management of natural resources:

- Other agencies, including the Arizona Department of Environmental Quality, Departments of Weights and Measures, Transportation, Commerce, Health Services, the Land Department, and the Industrial Commission manage programs and resources that interface with the air pollution control programs. MCESD regularly coordinates its activities with those of other State and County agencies to facilitate industrial development, compliance with crosscutting regulatory requirements and enhancement of natural resources. For example, permitting activities may involve the Department of Commerce and the State Land Department. Compliance activities may involve the Industrial Commission.
- Because federal programs in agencies other than EPA crosscut with the air pollution control programs, MCESD frequently needs to coordinate activities with these agencies. Another organization that MCESD is involved with is the State and Territorial Air Pollution

Program Administrators (STAPPA/ALAPCO). Finally, MCESD will be coordinating with EPA to acquire training and facilitate approval of federal air pollution programs delegated to the MCESD.

- MCESD, EPA, ADEQ, and the other county air pollution control districts have established two working groups for coordinating permitting and compliance activities and policies, and to provide a forum for resolving program implementation issues. The two committees meet quarterly, with each participating agency (including EPA) hosting the meeting on a rotating basis.

Assumptions - At the present time, MCESD is coordinating with other governmental agencies on an as needed basis, accounting for a little over 1000 hours per year. With increasing complexity of programs, additional crosscutting regulatory relationships, and the continued development of tribal environmental regulatory agencies, additional resources will be allocated for this activity.

Workload Analysis -

**Table 2.6.5.A Intergovernmental Program Coordination Workload Calculations**

	FY 1999 hrs/yr	FY 2000 hrs/yr	FY 2001 hrs/yr	Average
Compliance				
Title V	38	38	38	38
Non-Title V	338	338	338	338
Permits				
Title V	29	29	29	29
Non-Title V	33	33	33	33
Planning				
Title V	76	76	76	76
Non-Title V	248	248	248	248
Non-Recoverable	268	268	268	268
<b>TOTAL</b>	<b>1030</b>	<b>1030</b>	<b>1030</b>	1030
Title V	143	143	143	143
% Workload	14	14	14	14
Non-Title V	619	619	619	619
% Workload	60	60	60	60
Non-Recoverable	268	268	268	268
% Workload	26	26	26	26

Workload Discussion -

## Financial Analysis -

**Table 2.6.5.B Intergovernmental Program Coordination Financial Requirements**

	FTEs	Total
Technical	0.64	\$31,178
Manager	0.10	\$6,105
Support	0.10	\$2,839
Total FTEs	<b>0.85</b>	
Proposed Budget		
Salaries		<b>\$40,122</b>
ERE		\$8,417
Subtotal		\$48,538
P & O		\$0
Travel In		\$3,212
Travel Out		\$425
Other Operations		\$425
Equipment		\$2,672
Subtotal		\$6,734
Administrative		\$8,376
Total		<b>\$63,649</b>

Financial Discussion - Non-Title V costs associated with this task are cost recoverable and funded by the Permit Fee Fund. The non-recoverable portion of this program is funded by the continuing Federal grant from EPA, assuming an amount of about \$930,000. If the actual award is less than the projection, expenditures for this and all federally-funded tasks will be adjusted.

### **2.6.6 Indirect Program Resources**

Plain Language Description - This task involves activities indirectly associated with County and Department-wide managerial and administrative support to the Air Quality Division. These costs are included in each program's Administrative Costs category.

General Description - Indirect program resources involve activities associated with the County Internal Service charges, the Director's Office and the Business Services Division. These functions include financial management (accounting and budgeting), management services (purchasing, contracting, general stores, fleet management, inventory control, central receiving, mail service, etc.), human resources (employment and health and safety), planning, public affairs and agency overhead (rent, communications, postage, utilities, insurance, etc.).

Assumptions – The Department assumes that the most equitable way to assess the Air Quality Division for activities associated with this task would be to utilize the indirect cost rate negotiated with, and approved by, the Environmental Protection Agency (EPA). Hence, throughout this report, each program task includes a budgeted amount for indirect costs in the amount of 12.3% of personnel costs and employee-related expenses for all program activities.

In reviewing these changes, the Business Services Division, working with the Department's Administration, is aggressively reviewing opportunities to reduce the indirect rate, through the streamlining.

Workload Analysis -

**Table 2.6.6.A Indirect Program Resources Workload Calculations**

Workload Estimate 2.6.6.A	FY 1999	FY2000	FY2001
Indirect costs have been charged to the various program tasks. Some indirect costs are a fixed percentage (12.3%) of personnel cost including employee-related expenses and some are a cost per employee.			

Workload Discussion -Not applicable to this task.

Financial Analysis/Discussion -Not applicable to this task.